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ANNUAL CALENDAR

OF

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UNIVERSITY

MONTREAL



FOUNDED UNDER BEQUEST OF THE HON. JAMES McGILL,
ERECTED INTO A UNIVERSITY BY ROYAL CHARTER
IN 1821, AND RE-ORGANISED BY AN
AMENDED CHARTER IN 1852.

SESSION 1893-1894

Montreal:

PRINTED FOR THE UNIVERSITY BY JOHN LOVELL & SON.

1893.

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The *List of Graduates* corrected to June, 1893, and the *Examination Papers* (price 75 cents) of the Session 1892-93, are published separately, and may be obtained on application to the Secretary, or through booksellers.

Governing Body of the University.

VISITOR:

HIS EXCELLENCY THE RIGHT HONOURABLE LORD STANLEY OF PRESTON, G.C.B., P.C.,

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Lecturer in Logic and English. 58 University Street.

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Curator of Medical Museum. 764 Sherbrooke Street.

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W. S. MORROW, M.D. *Assistant Demonstrator in Physiology.*	

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J. L. DAY, B.A.	Sessional Lecturer in	Classics.	40 Durocher Street.
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MR. H. MOTT, *Assistant Librarian.*	Library, McGill College.

General Statement.

SESSION OF 1893-94.

The Sixty-first Session of the University, being the Fortieth under the amended Charter, will commence in the autumn of 1893.

By Virtue of the Royal Charter, granted in 1821 and amended in 1852, the Governors, Principal and Fellows of McGill College constitute the Corporation of the University; and, under the Statutes framed by the Board of Governors, with the approval of the Visitor, have the power of granting Degrees in all the Arts and Faculties in McGill College and Colleges affiliated thereto.

The Statutes and Regulations of the University have been framed on the most liberal principles, with the view of affording to all classes of persons the greatest possible facilities for the attainment of mental culture and professional training. In its religious character the University is Protestant, but not denominational; and while all possible attention will be given to the character and conduct of Students, no interference with their peculiar views will be sanctioned.

The educational work of the University is carried on in McGill College, Montreal, and in the Affiliated Colleges and Schools.

I. McGILL COLLEGE.

THE FACULTY OF ARTS.—The complete course of study extends over four Sessions of eight months each; and includes Classics and Mathematics, Experimental Physics, English Literature, Logic, Mental and Moral Science, Natural Science, and one Modern Language or Hebrew. The course of study is, with few exceptions, the same for all Students in the first two years; but in the third and fourth years extensive options are allowed, more especially in favour of the Honour Courses in Classics, Mathematics, Mental and Moral Science, Natural Science, English Literature and Modern Languages. Certain exemptions are also allowed to professional Students. The course of study leads to the Degrees of B.A., M.A. and LL.D.

The Degree of B.A. from this University admits the holder to the study of learned professions without preliminary examination, in the Provinces of Quebec and Ontario, and in Great Britain and Ireland, etc.

THE DONALDA SPECIAL COURSE IN ARTS provides for the education of women, in separate classes, with course of study, exemptions, degrees and honours similar to those for men.

THE FACULTY OF APPLIED SCIENCE provides a thorough professional training, extending over three or four years, in Civil Engineering, Mechanical Engineering, Mining Engineering and Assaying, Electrical Engineering, and Practical Chemistry, leading to the Degrees of Bachelor of Applied Science, Master of Engineering, and Master of Applied Science.

THE FACULTY OF MEDICINE.—The complete course of study in Medicine extends over four Sessions of six months each, and one Summer Session of three months in the third Academic Year, and leads to the Degree of M.D., C.M.

THE FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE.—The complete course extends over three Sessions of six months each, and leads to the Degree of D.V.S.

THE FACULTY OF LAW.—The complete course of law extends over three Sessions of six months each, and leads to the Degrees of B.C.L. and D.C.L.

II. AFFILIATED COLLEGES.

Students of Affiliated Colleges are matriculated in the University, and may pursue their course of study wholly in the Affiliated College, or in part in McGill College, and may come up to the University Examinations on the same terms with the Students of McGill College.

MORRIN COLLEGE, *Quebec*.—Is affiliated in so far as regards Degrees in Arts and Law. [Detailed information may be obtained from Rev. A. T. Love, B.A., Principal.]

ST. FRANCIS COLLEGE, *Richmond, P.Q.*—Is affiliated in so far as regards the Intermediate Examinations in Arts. [Detailed information may be obtained from Rev. C. A. TANNER, Principal.]

THE STANSTEAD WESLEYAN COLLEGE, *Stanstead, P.Q.*—Is affiliated in so far as regards the Intermediate Examination in Arts. [Detailed information may be obtained of Rev. C. A. FLANDERS, B.A., Principal.]

III. AFFILIATED THEOLOGICAL COLLEGES.

Affiliated Theological Colleges have the right of obtaining for their Students the advantage, in whole or in part, of the course of study in Arts, with such facilities in regard to exemptions as may be agreed on.

THE CONGREGATIONAL COLLEGE OF BRITISH NORTH AMERICA, *Montreal*. Principal, REV. WILLIAM M. BARBOUR, D.D., 58 McTavish St.

THE PRESBYTERIAN COLLEGE, MONTREAL, in connection with the Presbyterian Church in Canada. Principal, REV. D. H. MACVICAR, D.D., LL.D., 69 McTavish St.

THE DIOCESAN COLLEGE OF MONTREAL. Principal, REV. CANON HENDERSON, M.A., D.D., 896 Dorchester St.

THE WESLEYAN COLLEGE OF MONTREAL. Principal, REV. GEORGE DOUGLASS, LL.D., 228 University St.

[Calendars of the above Colleges and all necessary information may be obtained on application to their Principals.]

IV. McGILL NORMAL SCHOOL.

THE McGILL NORMAL SCHOOL provides the training requisite for Teachers of Elementary and Model Schools and Academies. Teachers trained in this School are entitled to Provincial Diplomas, and may, on conditions stated in the announcement of the School, enter the classes in the Faculty of Arts for Academy Diplomas and for the Degree of B.A. Principal, S. P. ROBINS, LL.D., 30 Belmont St., Montreal.

V. AFFILIATED HIGH SCHOOLS, ETC.

The Trafalgar Institute for the higher education of women, Simpson St., Montreal, Principal, Miss Grace Fairley. The High School of Montreal, Metcalfe St., Principal, Rev. I. Elson Rexford, B.A. The Girls' High School of Montreal, Metcalfe St., Lady Principal, Mrs. H. H. Fuller.

Schools which have prepared successful candidates for A.A. *or for matriculation* (*June*, 1892).

High School, Montreal; Girls' High School, Montreal; High School, Quebec; Girls' High School, St. John, N.B.; Aylmer Academy; Coaticook Academy; Cookshire Model School; Cowansville Academy; Huntingdon Academy; Inverness Academy; Knowlton Academy; Lachute Academy; Sherbrooke Boys' Academy; Sherbrooke Girls' Academy; Stanstead Wesleyan College; St. Johns High School; Sutton Model School; Waterloo Academy; Eliock School, Montreal; Ottawa Collegiate Institute; Owen Sound Collegiate Institute; Almonte High School; Bishop Ridley College, St. Catharines; Durham High School; Portage du Fort Model Schools; Montreal Collegiate Institute; Miss Symmers and Miss Smith; Bishops College College School, Lennoxville; Grammar School, Woodstock, N. B.; Bedford Academy; Compton Ladies' College; Marbleton Model School; Girls' High School, Quebec; St. Francis College; Trafalgar Institute, Montreal; Bridgenorth High School; Brockville Collegiate Institute; Carleton Place High School; Cote St. Antoine Academy; Dunham Academy; Frelighsburg Model School; Hatley Model School; Lennoxville Model School; Prince of Wales College, P.E.I.; Peterboro Collegiate Institute; Whethem College, Vancouver; Whitby Ladies' College; Williamstown High School.

ACADEMICAL YEAR 1893-94.

SEPTEMBER, 1893.

1	Friday	Normal School opens.
2	Saturday	Matriculation in Law.
3	**SUNDAY**	
4	Monday	Lectures in Law begin. Meeting Faculty of Law.
5	Tuesday	
6	Wednesday	Meeting of Normal School Committee.
7	Thursday	
8	Friday	
9	Saturday	
10	**SUNDAY**	
11	Monday	Meeting of Faculty of Law.
12	Tuesday	
13	Wednesday	Meeting of Faculty of Arts.
14	Thursday	Mat. and Sup. Exn's in Classics Exhib. and Scholarship Exam.
15	Friday	Mat. and Sup. Ex'ns in Math's
16	Saturday	Exhib. & Scholarship Exam.
17	**SUNDAY**	
18	Monday	Mat. & Sup. Ex'ns in English, Logic, Ment. and Mor. Phil. Exhib. and Sch. Exm'ns.
19	Tuesday	Mat. & Sup. Ex'ns in Modern Lang's and Nat. Sc.; Exhib. and Sch. Exam'ns.
20	Wednesday	Exhib. and Sch. Ex'ns. Lect's in Arts and App. Sc. begin.
21	Thursday	Meeting of Fac. of Arts at 11.15 a.m.
22	Friday	Summer Essays in Applied Sc.
23	Saturday	Matric. Exam. in Medicine.
24	**SUNDAY**	Meeting of Governors. Register Medical Faculty opens.
25	Monday	Meeting of Fac. of App. Sc.
26	Tuesday	
27	Wednesday	
28	Thursday	
29	Friday	Meeting of Faculty of Arts.
30	Saturday	

OCTOBER, 1893.

1	**SUNDAY**	
2	Monday	Session of Medical and Veterinary Faculties begins.
3	Tuesday	Meeting of Faculty of Law.
4	Wednesday	Meeting of Normal School Committee.
5	Thursday	Founder's Birthday.
6	Friday	
7	Saturday	The Wm. Molson Hall opened, 1862.
8	**SUNDAY**	
9	Monday	
10	Tuesday	
11	Wednesday	
12	Thursday	
13	Friday	
14	Saturday	Meeting of Faculty of Arts. Univ. Athletic Sports.
15	**SUNDAY**	
16	Monday	
17	Tuesday	
18	Wednesday	
19	Thursday	
20	Friday	Meeting of Governors.
21	Saturday	
22	**SUNDAY**	
23	Monday	Meeting of Museum Com.
24	Tuesday	Meeting of Library Com.
25	Wednesday	Regular Meeting of Corporation
26	Thursday	Reps. Schol. & Exh. Accounts audited.
27	Friday	Meeting of Faculty of Arts.
28	Saturday	
29	**SUNDAY**	
30	Monday	
31	Tuesday	Meeting of Fac. App. Science.

NOVEMBER, 1893.

1	Wednesday	Meeting Normal School Com.
2	Thursday	
3	Friday	
4	Saturday	
5	**SUNDAY**	
6	Monday	Meeting of Faculty of Law
7	Tuesday	
8	Wednesday	
9	Thursday	
10	Friday	Meeting of Faculty of Arts.
11	Saturday	
12	**SUNDAY**	
13	Monday	
14	Tuesday	
15	Wednesday	
16	Thursday	
17	Friday	Meeting of Faculty of Arts.
18	Saturday	
19	**SUNDAY**	
20	Monday	
21	Tuesday	
22	Wednesday	
23	Thursday	
24	Friday	Meeting of Governors.
25	Saturday	Medical Matriculation, P.Q. Exams. in Law.
26	**SUNDAY**	
27	Monday	
28	Tuesday	
29	Wednesday	
30	Thursday	

DECEMBER, 1893

1	Friday	
2	Saturday	
3	**SUNDAY**	
4	Monday	Meeting of Faculty of Law.
5	Tuesday	Meeting of Faculty of App. Sc.
6	Wednesday	Meeting of Nor. Sch. Comm.
7	Thursday	
8	Friday	Meeting of Fac. of Arts.
9	Saturday	Examinations in Law.
10	**SUNDAY**	
11	Monday	
12	Tuesday	Lect. in Law, Arts, Ap. Sc. end
13	Wednesday	
14	Thursday	Christmas Ex. in Law, Arts and Applied Science begin.
15	Friday	
16	Saturday	
17	**SUNDAY**	
18	Monday	
19	Tuesday	
20	Wednesday	
21	Thursday	
22	Friday	Meeting of Governors.
23	Saturday	Christmas Vacation begins.
24	**SUNDAY**	
25	Monday	Christmas-Day.
26	Tuesday	
27	Wednesday	
28	Thursday	
29	Friday	
30	Saturday	
31	**SUNDAY**	

NOTE.—Meetings of the Faculty of Arts are held at 4.30 P.M. unless otherwise specified.

JANUARY, 1894.

1 Monday	
2 Tuesday	
3 Wednesday	Christmas Vacation ends. Meeting of Nor. Sc. Comm.
4 Thursday	Lectures in Arts, Law, Med. & App. Science recommence. Meeting of Fac. of Arts.
5 Friday	
6 Saturday	
7 SUNDAY	
8 Monday	Meeting Faculty of Law.
9 Tuesday	Meeting of Fac. of App. Sci.
10 Wednesday	
11 Thursday	
12 Friday	
13 Saturday	
14 SUNDAY	
15 Monday	
16 Tuesday	
17 Wednesday	
18 Thursday	
19 Friday	
20 Saturday	
21 SUNDAY	
22 Monday	Meeting of Museum Com.
23 Tuesday	Meeting of Library Com.
24 Wednesday	Regular Meet'g of Corporation. Examiners appointed. Annual Report to Visitor.
25 Thursday	
26 Friday	Meeting of Governors.
27 Saturday	
28 SUNDAY	
29 Monday	
30 Tuesday	Theses for M. A. & LL.D. to be sent in
31 Wednesday	Meeting of Nor. Sch. Comm.

FEBRUARY, 1894.

1 Thursday	
2 Friday	Meeting of Faculty of Arts.
3 Saturday	
4 SUNDAY	
5 Monday	Meeting of Faculty of Law.
6 Tuesday	Meeting of Fac. App. Science.
7 Wednesday	No lectures.
8 Thursday	
9 Friday	
10 Saturday	Exams. in Law.
11 SUNDAY	
12 Monday	
13 Tuesday	
14 Wednesday	
15 Thursday	
16 Friday	Meeting of Faculty of Arts. Supplemental Exam's in Arts and Applied Science.
17 Saturday	
18 SUNDAY	
19 Monday	
20 Tuesday	
21 Wednesday	
22 Thursday	
23 Friday	Meeting of Governors.
24 Saturday	Exams. in Law.
25 SUNDAY	
26 Monday	
27 Tuesday	
28 Wednesday	

MARCH, 1894.

1 Thursday	Meeting of Nor. Sc. Com. Theses for B.C.L. sent in.
2 Friday	Meeting of Fac. of Arts.
3 Saturday	
4 SUNDAY	
5 Monday	Meeting of Faculty of Law.
6 Tuesday	Meeting of Fac. of Ap. Science.
7 Wednesday	
8 Thursday	
9 Friday	
10 Saturday	Examinations in Law.
11 SUNDAY	
12 Monday	
13 Tuesday	
14 Wednesday	
15 Thursday	
16 Friday	Meeting of Fac. of Arts. Reports of Attendance on Lects Lectures in Medicine end.
17 Saturday	Exams. in Law.
18 SUNDAY	
19 Monday	Exam's in Med. begin.
20 Tuesday	Meeting of Fac. of Ap. Science
21 Wednesday	
22 Thursday	Meeting of Governors.
23 Friday	Good Friday. Easter Vacation begins.
24 Saturday	Medical Matriculation, P.Q.
25 SUNDAY	Easter.
26 Monday	
27 Tuesday	Easter vacation ends.
28 Wednesday	
29 Thursday	
30 Friday	Conv for Degrees in Veterinary Science.
31 Saturday	Lects. in Arts and Ap. Sc. end.

APRIL, 1894.

1 SUNDAY	
2 Monday	Meeting Fac. of Law.
3 Tuesday	Exams. in Arts begin. Conv. for Degrees in Medicine.
4 Wednesday	Meeting of Nor. Sc. Committee
5 Thursday	
6 Friday	Meeting of Fac. of Arts.
7 Saturday	
8 SUNDAY	
9 Monday	Meeting of Faculty of Law
10 Tuesday	Summer Session Med. Fac.
11 Wednesday	begins.
12 Thursday	Lectures in Law end.
13 Friday	
14 Saturday	
15 SUNDAY	
16 Monday	Exams. in Law begin.
17 Tuesday	
18 Wednesday	
19 Thursday	Meeting of Examiners, and of Fac. Arts and Law.
20 Friday	Meeting of Governors.
21 Saturday	
22 SUNDAY	
23 Monday	Meetings of Museum Committee and Faculty of Law.
24 Tuesday	Meeting of Library Committee. Declaration of result of Exam's.
25 Wednesday	Regular meeting of Corporation.
26 Thursday	
27 Friday	Convocation for Degrees in Law
28 Saturday	Convocation for Degrees in Applied Science.
29 SUNDAY	
30 Monday	Convocation for Degrees in Arts.

MAY, 1894.

1 Tuesday	Meeting of Examiners for Sch. Examinations. Examinations in Normal School begin.
2 Wednesday	Meeting Nor. Sch. Committee.
3 Thursday	
4 Friday	
5 Saturday	
6 SUNDAY	
7 Monday	
8 Tuesday	
9 Wednesday	
10 Thursday	
11 Friday	
12 Saturday	
13 SUNDAY	Whit-Sunday.
14 Monday	
15 Tuesday	
16 Wednesday	
17 Thursday	
18 Friday	
19 Saturday	
20 SUNDAY	Trinity Sunday.
21 Monday	
22 Tuesday	
23 Wednesday	
24 Thursday	Queen's Birthday.
25 Friday	Meeting of Governors.
26 Saturday	
27 SUNDAY	
28 Monday	
29 Tuesday	
30 Wednesday	Normal Sch. closes for Summer Vacation.
31 Thursday	

JUNE, 1894.

1 Friday	Examinations for Matric. and Associate in Arts begin.
2 Saturday	
3 SUNDAY	
4 Monday	Meeting of Faculty of Law.
5 Tuesday	
6 Wednesday	Normal School Committee.
7 Thursday	
8 Friday	
9 Saturday	
10 SUNDAY	
11 Monday	
12 Tuesday	
13 Wednesday	
14 Thursday	
15 Friday	Declaration of results of School Examinations.
16 Saturday	
17 SUNDAY	
18 Monday	Meeting of Museum Committee.
19 Tuesday	Meeting of Library Committee.
20 Wednesday	Regular Meeting of Corporat'n. Report of Normal School.
21 Thursday	
22 Friday	Meeting of Governors.
23 Saturday	
24 SUNDAY	
25 Monday	
26 Tuesday	
27 Wednesday	
28 Thursday	
29 Friday	Summr. Sessn. Med. Fac. ends.
30 Saturday	

JULY, 1894.

1 SUNDAY	
2 Monday	
3 Tuesday	
4 Wednesday	
5 Thursday	
6 Friday	
7 Saturday	
8 SUNDAY	
9 Monday	
10 Tuesday	
11 Wednesday	
12 Thursday	
13 Friday	
14 Saturday	
15 SUNDAY	
16 Monday	
17 Tuesday	
18 Wednesday	
19 Thursday	
20 Friday	
21 Saturday	
22 SUNDAY	
23 Monday	
24 Tuesday	
25 Wednesday	
26 Thursday	
27 Friday	
28 Saturday	
29 SUNDAY	
30 Monday	
31 Tuesday	

AUGUST, 1894.

1 Wednesday	
2 Thursday	
3 Friday	
4 Saturday	
5 SUNDAY	
6 Monday	
7 Tuesday	
8 Wednesday	
9 Thursday	
10 Friday	
11 Saturday	
12 SUNDAY	
13 Monday	
14 Tuesday	
15 Wednesday	Peter Redpath Museum opened 1882.
16 Thursday	
17 Friday	
18 Saturday	
19 SUNDAY	
20 Monday	
21 Tuesday	
22 Wednesday	
23 Thursday	
24 Friday	
25 Saturday	
26 SUNDAY	
27 Monday	
28 Tuesday	
29 Wednesday	
30 Thursday	
31 Friday	

FACULTY OF ARTS.

EXHIBITION, SCHOLARSHIP, &c., EXAMINATIONS, SEPTEMBER, 1893.

DAY.	DATE	FIRST YEAR	SECOND YEAR.	THIRD YEAR.	HOUR.
Thursday.	14	Greek.	Greek.	Greek.	9 to 12
"	14	Latin.	Latin.	Latin Prose Comp.	2 to 5
"	14			Mathematics.	9 to 12
Friday.	15	Mathematics.	Mathematics.	Latin.	9 to 12
"	15			Mathematics.	9 to 12
"	15			Botany.	9 to 12
"	15	Mathematics.	Mathematics.	Ancient History.	2 to 5
"	15			Botany.	2 to 5
Monday.	18	English.	English.	English.	9 to 12
"	18			Logic.	9 to 12
"	18	English.		English.	2 to 5
"	18		Chemistry.	Chemistry.	2 to 5
Tuesday.	19			Mathematics.	9 to 12
"	19			Botany.	9 to 12
"	19		French.	French.	9 to 12
"	19	Grammar and Comp. (Classics.)	General Paper. (Classics.)	English Composition	2 to 5
Wednesday.	20		Mathematics.	Mathematics.	9 to 12
			English.		2 to 5

CHRISTMAS EXAMINATIONS, DECEMBER, 1893.

DAY.	DATE	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.	FURTHEAR.
Friday.	15	Latin.	Latin.	Mechanics.	Astronomy.
"	15		M'matics, P.M.		
Monday.	18	Greek.	Greek.	Greek.	Greek.
"	18			Zoology, P.M.	Latin, P.M.
Tuesday.	19	Mathematics.	Psychology.	Latin.	Moral Philosophy
"	19	French, P.M.	French, P.M.	Ment. Phil., P.M.	Geology, P.M.
Wednesday.	20	Chemistry.			
"	20	German, P.M.	German, P.M.		
"	20	Hebrew, P.M.	Hebrew, P.M.		
Thursday.	21	English.			

FACULTY OF ARTS.

SESSIONAL AND HONOUR EXAMINATIONS, APRIL, 1894.

DATE.	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.	FOURTH YEAR.
APRIL.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.
1 Sun.	.....	.....	.....	.....
2 Mon.	Hebrew	Hebrew	Hebrew	Hebrew and B.A. Honours.
3 Tues.	Greek.	Greek.	Mechanics.....	Ethics. Ethics.
4 Wed.	Latin.... Anc. History	Latin. Composition.	Latin.....	Latin. Latin
5 Thurs.	....	....	.....	.....
6 Fri.	English.	English. English.	Ex. Phy- English. sics.	Ex. Phy- History. sics.
7 Sat.	.....	.....	.....	.....
8 Sun.	.....	.....	.....	.....
9 Mon.	Geometry and Arithmetic. ...	Mathematics.....	Greek.....	Mechanics and B.A. Honours.
10 Tues.	Trigonometry and Algebra.....	Mathematics...	Astronomy and .... Optics.....	Astr'y. and Optics. B.A. Honours.
11 Wed.	.....	.....	.....	.....
12 Thurs.	French and German.	French and German.	Metaphysics.....	Geology. Geology.
13 Fri.	Chemistry.....	Logic.....	.... Zoology	Greek. History.
14 Sat.	.....	.....	.....	.....
15 Sun.	.....	.....	.....	.....
16 Mon.	.....	Botany.....	French & German.	French and German B.A. Honours.
17 Tues.	....	.....	.....	.....
18 Wed.	.....	....	.....	B.A. Honours.
19 Thurs.	Meeting of	Examiners and Facul	ty.	
20 Fri.	Honour Examinations	HonourExaminations	Honour Exam'tions	B.A. Honours.
21 Sat.	Meeting of	Examiners and Facul	ty.	
22 Sun.	.....	.....	.....	.....
23 Mon.	Honour Examinations	Honour Examinations	Honour Exam'tions	B. A. Honours.
24 Tues.	Meetingof	Examiners and Facul	ty.	
25 Wed.	Meeting of	Examiners and Facul	ty. Regular Meet	ing of Corporation.
26 Thurs.	Meeting of	Examiners and Facul	ty. Declaration	of results.
27 Fri.	.....	.....	.....	.....
28 Sat.	.....	.....	.....	.....
29 Sun.	.....	.....	.....	.....
30 Mon.	Convocation for Degr	ees in Arts.		

The Examinations begin at 9 A.M. and 2 P.M. when not specified otherwise.

FACULTY OF APPLIED SCIENCE.

EXAMINATIONS—1893-94.

CHRISTMAS, 1893.

The days of the several Examinations will be announced by the Faculty during the Session.

SESSIONAL, 1894.

Days.	First Year.	Second Year.	Third Year.	Fourth Year.
S. Mch. 31	.....	.....	Theory of Structures	Theory of Structures.
Sun. Apr 1	.....	.....	.....	.....
M. " 2	Practical Chemistry.	{ Chemistry. Surveying.	{ Chemistry. Surveying.	Geodesy.
T. " 3	Mathematics.	.....	Theory of Structures	Theory of Structures
W. " 4	.....	Essay.	Essay.	Essay.
T. " 5	.....	Mechanism.	Mechanism.	{ Dyn. of Machin'y. Th. of Structures.
F. " 6	English.	Exp. Physics.	Exp. Physics.	Assaying.
S. " 7	.....	Practical Chemistry.	Practical Chemistry.	Theory of Structures
Sun. " 8	.....	.....	.....	.....
M. " 9	Mathematics.	Mathematics.	Theory of Structures (adv.)	Theory of Structures (adv.).
T. " 10	Freehand Drawing.	.....	Mineralogy (adv.).	{ Kin. of Machin'y. Mineralogy (adv.)
W. " 11	Desc. Geometry.	Desc. Geometry.	Descrp've Geometry	{ Th. of Struct. (adv.) Mineralogy, (adv.)
T. " 12	French & German.	French & German.	{ Kinematics of Ma Geology. [chinery.	Hydraulics.
F. " 13	Chemistry.	{ Chemistry (a.m.) Zoology (p.m.).	Chemistry.	Hydraulics, (adv.).
S. " 14	.....	.....	Mining.	Metallurgy.
Sun. " 15	.....	.....	.....	.....
M. " 16	.....	Botany.	Dyn. of Machinery.	Dyn. of Machin'y.
T. " 17	Mathematics.	Mathematics.	Mathematics.	Thermodynamics.
W. " 18				
T. " 19				
F. " 20				
S. " 21				
Sun. " 22	.....	.....	.....	.....
M. " 23				
T. " 24				
W. " 25				
T. " 26				
F. " 27				

Faculty of Arts.

THE PRINCIPAL (Ex-Officio).

Professors :—DAWSON,
JOHNSON,
CORNISH,
DAREY,
MURRAY,
HARRINGTON,
MOYSE,

Professors:—PENHALLOW.
COUSSIRAT.
COX.
Associate Prof.:—EATON.
Lecturers :—CHANDLER.
LAFLEUR.
ADAMS.
GREGOR.

Dean of the Faculty :—ALEXANDER JOHNSON M.A., LL.D.

[CONTENTS.—*Matriculation*, &c., § I. ; *Exhibitions*, &c., § II. ; *Course of Study*, § III. ; *Examinations, Degrees*, &c., § IV. ; *Exemptions*, &c., § V. ; *Medals*, &c., § VI. ; *Licensed Boarding Houses*, § VII ; *Attendance and Conduct*, § VIII. ; *Library*, § IX. ; *Peter Redpath Museum*, § X. ; *Fees*, &c., § XI. ; *Courses of Lectures*, § XII.]

The next session of this Faculty will begin on September 14th, 1893, and will extend to April 30th, 1894.

§ I. MATRICULATION AND ADMISSION.

In this University those only who attend Lectures are denominated Students.

Students in the Faculty of Arts are classified as Undergraduates or Partial Students. The conditions of admission for each and for Students of other Universities are given below.

1 UNDERGRADUATES.

Undergraduates alone can proceed to the degree of B.A. Candidates for admission to the First Year, as Undergraduates, are required to pass the First Year Entrance Examination. The successful Candidates are arranged as First Class, Second Class, and

Passed. To the most deserving in the First Class, the First Year Exhibitions are awarded. For those who aim at passing only, a minimum course is appointed, and there are two examinations in the year as follows :—

(1) That held in the first week of June, concurrently with the examinations for Associate in Arts. Schools desirous to take advantage of this may send their pupils for examination to McGill College ; or, if at a distance, by sending in to the Secretary of the University the names of Deputy Examiners for approval, with a list of candidates, on or before May 1st, may have papers sent to them. (2) That held at the opening of the session, on September 14th and following days, in McGill College alone.

As the examination is intended as a test of qualification for admission to the classes of the University, certificates of passing are not granted except to those who subsequently attend lectures. Candidates who may have passed the examination are not " Matriculated " until they have paid all the prescribed fees for the session and complied with the other University regulations. (See " Directions " below).

First Year Entrance Examination.

(*a*) *For Passing only.*

Examinations beginning on June 1st in McGill College and local centres ; on September 14th in McGill College only.

Greek.—Xenophon, Anabasis, Book I. ; Greek Grammar.

Latin.—Caesar, Bell. Gall., Book I. ; and Virgil, Aeneid, Book I., Latin Grammar. [In 1894, and afterwards, two books of Caesar may be required.]

Mathematics.—Arithmetic, including a knowledge of the Metric system ; Algebra to Quadratic Equations (inclusive) as in Colenso ; Euclid's Elements, Books I., II., III.

English.—Writing from Dictation. A paper on English Grammer *including Analysis*. A paper on the leading events of English History. Essay on a subject to be given at the time of the examination.

French.—Grammar up to the beginning of Syntax. An easy translation from French into English.

Candidates unable to take French are not excluded, but will be required to study German after entrance.

At the September (but not at the June) examinations, an equivalent amount of other books or other authors in Latin and Greek than those named may be

accepted by the Examiners on application made through the Professor of Classics. At the June examination, candidates from Ontario may present an equivalent amount from the books prescribed for the Junior Matriculation Examination of the University of Toronto.

Candidates who at the Examination for Associate in Arts have passed in the above subjects are admitted as Undergraduates.

The Matriculation or Junior leaving Examination accepted by the Universities of Ontario is accepted by the Faculty in so far as the subjects of their programme satifsy the Examiners of the Faculty, i.e. when the subjects taken are the same as or equivalent to those required in McGill University.

For Candidates from Ontario, Second Class non-professional certificates will be accepted *pro tanto* in the Examination.

For qualifications required of Normal School Students see Normal School regulations.

Candidates who fail in one or more subjects at the June examination, and present themselves again in the following September, will be exempted from examination in those subjects only in which the Examiners may have reported them as specially qualified.

(*b*) *Higher Examination—For First Class, Second Class and Passing.*

The examination will be held on September 14th and following days in McGill College only. (For Exhibitions, see § II.)

Greek.—Homer, Iliad, Bk. I or IV.; Xenophon, Anabasis, Bk. I. or IV.; Demosthenes, Philippics, I. and II.; or Homer, Odyssey, Bk. VII or IX.

Latin.—Cicero, in Catilinam, Orat. I. and II. or Pro Lege Manilia; Virgil, Aeneid, Bk. I.; Caesar, Bell. Gall., Bks. I. and II. or, III. and IV.

A paper on Greek and Latin Grammar.

Translation at Sight from the easier Latin authors. Abbott's Arnold's Greek Prose Composition, Exercises 1 to 25. Collar's Practical Latin Composition, Pts. III. and IV. or, an equivalent such as Arnold's Latin Prose Composition.

Mathematics.—Euclid, Bks. I., II., III., IV.; Algebra to end of Harmonical Progression (Colenso); Arithmetic.

English.—English Grammar and Composition.—(Mason's Grammar, omit Derivation and Appendix.)

French.—(solely as a test of qualification to join the French Class.)—Grammar up to the beginning of Syntax; and easy translation from French into English Candidates unable to take French will be required to study German after entrance.

SECOND YEAR ENTRANCE EXAMINATION.

Candidates may be admitted into the Second Year as Undergraduates, if able to pass the Second Year Entrance Examination. The regulations for this correspond to those for the First Year, the higher examination being the same as that for the Second Year Exhibitions (see § II.) held in September ; or the Candidates may take the First Year Sessional Examinations held in April. There is besides,

For Passing only.

An Examination beginnning on Sept. 14th, in McGill College only.

In Classics.—Greek.—Homer, Iliad, Book VI. ; Xenophon, Anabasis, Book I., Grammar and Prose Composition.

Latin.—Virgil, Aeneid, Book VI. ; Cicero, Orations against Catiline ; Grammar and Prose Composition.

[An equivalent amount of other books or other authors in Latin and Greek than those named above may be accepted by the Examiners for entrance into the Second Year, on application made through the Professor of Classics.]

In Mathematics :—

Euclid.—Books I., II., III., IV., VI., with defs. of Book V. (Omitting Propositions 27, 28, 29 of Book VI.)

Algebra.—To end of Quadratic Equations, (as in Colenso's Alg.)

Trigonometry.—Galbraith and Haughton's Trigononetry, Chaps. 1, 2, 3, 4, 6, to beginning of numerical solution of plane triangles.

Arithmetic.—Elementary rules, Proportion, Interest, Discount, &c., Vulgar and Decimal Fractions, Square Root, Metric System.

In English Literature.—Writing from Dictation, English Grammar, including Analysis, English Composition, English History (Buckley). Essay.

In French.—French Grammar ; or (instead of French) *German*, in which knowledge sufficient to enable the Candidate to join the regular class will be required.

In Chemistry.—The Chemistry of the non-metallic Elements and of the more common metals.

[*Note.*—Candidates unable to pass in French or German are not excluded, but are required to begin German, and to continue the study of it for two years.

2. PARTIAL STUDENTS.—STUDENTS OF OTHER UNIVERSITIES.

PARTIAL STUDENTS.—All who are not Undergraduates or students in Special Courses are called Partial Students. Candidates for admission as Partial Students, must satisfy the professors of the several subjects they select of their fitness to attend the lectures or be examined in these subjects, as may from time to time be determined by the Faculty.

The subjects in which an examination is necessary are :—Latin, Greek, Mathematics, English, French. Candidates are required to appear at the ordinary entrance examinations announced above ; but on application to the Faculty, may, for sufficient cause, have a later day appointed.

STUDENTS OF OTHER UNIVERSITIES may be admitted, on the production of certificates, to a like standing in this University, after examination by the Faculty.

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3. GENERAL REGULATIONS.

Candidates for entrance into the First Year of the Faculty of Medicine in McGill University may pass in the above examinations.

Every Student is expected to present, on his entrance, a written intimation from his parent or guardian of the name of the minister of religion under whose care and instruction it is desired that the Student should be placed, who will thereupon be invited to put himself in communication with the Faculty on the subject. Failing such intimation from his parent or guardian, the Faculty will endeavor to establish befitting relations.

Every Student is required to sign the following :—

DECLARATION.

"I hereby declare that I will faithfully observe the statutes, rules and ordi-
"nances of this University of McGill College to the best of my ability."

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4. DIRECTIONS TO CANDIDATES FOR MATRICULATION OR ADMISSION.

Candidates are required :—

(*a*) To present themselves to the Dean at the beginning of the Session, and fill up a form of application for matriculation or admission (§ I.).

(*b*) To pass or to have passed the required examinations (§ I.). Candidates claiming exemption, according to the regulations above given, from examination in any subject on the ground of examinations previously passed, must present certificates of standing in the latter.

(*c*) To procure tickets from the Registrar (§XI.); and, to sign the declaration above given.

(*d*) To present their tickets to the Dean. (Fine, etc., for delay stated in §XI.

(*e*) To provide themselves with the Academic dress (§ VIII.).

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§ II. SCHOLARSHIPS AND EXHIBITIONS.

General Regulations.

1. A Scholarship is tenable for *two* years; an Exhibition for *one* year.

2. Scholarships are open for competition to Students who have passed the University Intermediate Examination, provided that not more than three sessions have elapsed since their Matriculation; and also to Candidates who have obtained what the Faculty may deem equivalent standing in some other University, provided that application be made before the end of the Session preceding the examination.

3. Scholarships are divided into two classes:—(1) *Science* Scholarships; (2) *Classical and Modern Language* Scholarships. The subjects of examination for each are as follows:—

Science Scholarships:—Differential and Integral Calculus; Analytic Geometry; Plane and Spherical Trigonometry; Higher Algebra and Theory of Equations; Botany; Chemistry; Logic. (For subdivision, see below.)

Classical and Modern Language Scholarships:—Greek; Latin; English Composition; English Language, Literature, and History; French or German.

4. Exhibitions are assigned to the First and Second Years.

First Year Exhibitions are open for competition to Candidates for entrance into the First Year.

Second Year Exhibitions are open for competition to Students who have passed the First Year Sessional Examinations, provided that not more than two Sessions have elapsed since their Matriculation; and also to Candidates for entrance into the Second Year.

The subjects of examination are as follows:—

First Year Exhibitions.—Classics, Mathematics, English.

Second Year Exhibitions.—Classics, Mathematics, English Language and Literature, Chemistry and French or German.

5. The First and Second Year Exhibition Examinations will, for Candidates who have not previously entered the University, be regarded as Matriculation Examinations.

6. No Student can hold more than one Exhibition or Scholarship at the same time.

7. Exhibitions and Scholarships will not necessarily be awarded to the best answerers at the Examinations. Absolute merit will be required.

8. If in any one College Year there be not a sufficient number of Candidates showing absolute merit, any one or more of the Exhibitions or Scholarships offered for competition may be transferred to more deserving Candidates in another year.

9. A successful Candidate must, in order to retain his Scholarship or Exhibition, proceed regularly with his College Course to the satisfaction of the Faculty.

10. The annual income of the Scholarships or Exhibitions will be paid in four instalments, viz. :—In October, December, February and April, about the 20th day of each month.

11. The Examinations will be held at the beginning of every Session.

There are at present seventeen Scholarships and Exhibitions :—

THE JANE REDPATH EXHIBITION, founded by Mrs. Redpath, of Terrace Bank, Montreal :—value, about $90 yearly, open to both men and women.

TEN MCDONALD SCHOLARSHIPS AND EXHIBITIONS, founded by W. C. McDonald, Esq., Montreal :—value, $125 each yearly.

THE CHARLES ALEXANDER SCHOLARSHIP, founded by Charles Alexander, Esq., Montreal, for the encouragement of the study of Classics and other subjects : —value, $120 yearly.

THE GEORGE HAGUE EXHIBITION given by George Hague, Esq., Montreal, for the encouragement of the study of Classics :—value, $125 yearly.

THE MAJOR H. MILLS SCHOLARSHIP, founded by bequest of the late Major Hiram Mills :—value, $100 yearly.

THE BARBARA SCOTT SCHOLARSHIP, founded by the late Miss Barbara Scott, for the encouragement of the study of the Classical languages and literature : —value, $100 to $120 yearly.

TWO DONALDA EXHIBITIONS, open to women in the Donalda Department :— value, $100 and $120 yearly.

EXHIBITIONS AND SCHOLARSHIPS OFFERED FOR COMPETITION AT THE OPENING OF THE SESSION, SEPT., 1893.

N.B.—*Three of the Exhibitions are open to women* (*two of these to women, alone, either in the First or Second Year*).

Extract from the Regulations :—

"If in any one College Year there be not a sufficient number of candidates showing absolute merit, any one or more of the Exhibitions or Scholarships offered for competition may be transferred to more deserving candidates in another year."

To Students entering the First Year, two Exhibitions of $125, *two of* $100, *one of* $120, *and one of* $90.

Subjects of Examination :—

GREEK.—Homer, Iliad, Bk. I. or IV., Xenophon, Anabasis, Bk. I. or IV.; Demosthenes, Philippics I. and II., or Homer, Odyssey, Bk. VII.

LATIN.—Cicero, In Catilinam, Orat. I. and II; Virgil, Aeneid, Bk. I.; Caesar, Bell. Gall., Bks. I. and II., or III. and IV.

A paper on Greek and Latin Grammar.

Mathematics.—Euclid, Bks. I., II., III. IV.; Algebra to end of Harmonical Progression as in (Colenso); Arithmetic.

English.—English Grammar and Composition.—(Mason's Grammar, omit Derivation and Appendix.)

The First Year Exhibitions will be awarded to the best answerers in the above course, provided there be absolute merit.

But in subsequently distributing the Exhibitions of higher value among the successful candidates, answering in the following subjects will be taken into account also :—

1. A retranslation into Latin of an English version of some passage from one of the easier Latin Prose writers. (For specimens, see Smith's Principia Latina, Part V.)

2. Euclid, Book VI. (omitting Props. 27, 28, 29), with Defs. of Book V.

3. English :—An Examination upon one of Shakespeare's plays. For 1893. —Macbeth.

4. French :—Syntax and translation from English into French, in addition to the entrance course.

To Students entering the Second Year, Four Exhibitions of $125 (*see also* N.B. *above.*)

Subjects of Examination :—

Greek.—Homer, Odyssey, Bk. VII. or Bk. IX.; Plato, Laches; Demosthenes, Olynthiacs, I. and II.

Latin.—Virgil, Georgics, Bk. I., or Aeneid, Bk. III; Horace, Odes, Bk I.; Livy, Bk. XXII., or Cicero, Pro Lege Manilia and Pro Archia.

Greek and Latin Prose Composition, and Translation at sight from the less difficult Latin aud Greck authors.

A paper on Grammar and History.

Text-Books.—Myer's Ancient History. Abbott's Arnold's Greek Prose Composition. Latin Prose through English Idiom (Abbott).

Mathematics.—Euclids (six books); Algebra (Hall & Knight's Advanced) · McDowell's Exercices in Modern Geometry; Theory of Equations (in part); Trigonometry (first four chapters Galbraith & Hauqhton).

English Literature.—Mason's Grammar. Shakespeare, *As you like It.* Trench, *Study of Words.*

Chemistry.—Roscoe's Lessons in Elementary Chemistry, as far as page 264.

French.—Darey, Principes de Grammaire Française; La Fontaine, les Fables, llvres III. and IV.; Molière, l'Avare.

Or, Instead of French :—

German.—German Grammai ; Grimm's Kinder—und Hausmærchen, (Vandersmissen's edition) ; Schiller—Der Gang nach dem Eisenhammer.

N.B. For 1894 add Schiller's Der Neffe als Onkel.

A candidate for a Second Year Exhibition to be successful must not, at the special examination, be placed, in the Third Class in more than one of the ordinary subjects. The award is made on the aggregate of the marks among those who fulfill this condition

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To Students entering the Third Year, three Scholarships of $125 *and one of* $120, *tenable for two years.*

One of these is offered in Mathematics and Logic, and one in Natural Science and Logic, as follows :—

1. *Mathematics.*—Differential Calculus (Williamson, C haps. 1, 2, 3, 4, 7, 9. Chap. 12, Arts. 168-183 inclusive ; Chap. 17, Arts. 225-242 inclusive). Integral Calculus (Williamson, Chaps. 1, 2, 3, 4, 5 ; Chap. 7, Arts. 126-140 inclusive ; Chap. 8, Arts. 150-156 inclusive ; Chap. 9, Arts. 168-176 inclusive). Analytic Geometry (Salmon's Conic Sections, subjects of Chaps. 1-13 [omitting Chap. 8], with part of Chap. 14). Lock's Higher Trigonometry ; McLelland and Preston's Spherical Trigonometry, Part I. Salmon's Modern Higher Algebra (first four chapters). Todhunter's or Burnside and Panton's Theory of Equations (selected course).

   Logic, as in Jevons' Elementary Lessons in Logic.

2. *Natural Science.—Botany*, as in Gray's Structural and Systematic Botany. *Canadian Botany*, including a practical acquaintance with all the orders of Phanerogams, Pteridophytes and Bryophytes. *Chemistry*, as in Roscoe's Lessons in Ele mentary Chemistry.

   Logic, as in Jevons' Elementary Lessons on Logic.

Two will be given on an Examination in Classics and Modern Languages, as follows :—

Classics.—Greek.—Plato, Apology and Crito ; Demosthenes, the Olynthiacs ; Xenophon, Memorabilia, Book I.; Herodotus, Book VII.; Thucydides, Book VI. *Latin.*—Horace, Epistles, Book I.; Livy, Bks. XXI., XXIII., Virgil, Georgics, BookI. ; Sallust, Catiline ; Cicero,

Select Letters (Pritchard and Bernard ; Clarendon Press Series). Greek and Latin Prose Composition, and Translation at sight.

History.—Text-Books.—Smith's Student's Greece ; Mommsen's Rome (abridged)

English Language and Literature.—Spalding's English Literature (Chap. VI., Part III., to end of book); Shakspere, Tempest ; Milton's Paradise Lost, Books I. and II.; Trench, Study of Words.

English Composition.—High marks will be given for this subject.

French.—Racine, Britannicus ; Molière, les Femmes Savantes. French Grammar. Bonnefon, les Ecrivains célèbres de la France. Translation from English into French.

Or, instead of French :—

German.—Schiller,—Der Neffe als Onkel. Egmont's Leben und Tod (Buchheim). Die Kraniche des Ibycus ; German Grammar ; Translation from English into German.

N.B. For 1894 substitute for Der Neffe als Onkel the following : Schiller—Das Lied von der Glocke, Der Kampf mit dem Drachen ; Gœthe.—Torquato Tasso.

Classical Subjects for Exhibitions, September, 1894.

FIRST YEAR.—*Greek.*—Homer, Iliad, Bk. IV. or VI., Xenophon, Anabasis, Bk. I. or IV.; Homer, Odyssey, VII. or IX.

Latin.—Virgil, Aen., Bk. I. or II.; Cicero, In Catilinam, I., II. or, Virgil, III. and IV.
Caesar, Bell. Gall. I. and II. or III. and IV.

SECOND YEAR.—*Greek.*—Xenophon, Hellenics, I. and II.; Demosthenes, Olynthiacs, I. and II.; Herodotus, Bk. III.

Latin.—Virgil, Georgics, Bk. I.; Horace, Odes, Bk. I.; Cicero, Pro Lege Manilia and Pro Archia.

EXEMPTIONS FROM TUITION FEES UNDER PRESENTATION SCHOLARSHIPS, ETC.

Four exemptions from tuition fees may be granted by the Board of Governors rom time to time, to the most successful Students who may present themselves as Candidates. By order of the Board, one of these is given annually to the Dux of the High School of Montreal, and one to the Dux of any other Academy or High School, sending up in one year for entrance, three or more Candidates competent to pass creditably the Matriculation Examination.

In the event of any Academy or High School in the Province of Quebec offering for competition among its pupils an Annual Bursary in the Faculty of Arts of not less than $80, the Governors will add the amount of the fees of tuition reto.

Exemptions from tuition fees, not exceeding three in number, may be given to holders of the Academy Diploma of the McGill Normal School, who, on fulfilling the required conditions, enter in the Second Year, if at the Diploma Examination they have taken 75 per cent. of the total marks, with not less than two-thirds of the marks in Latin and in Greek. (For exemptions from fees to Normal School Students, see regulations of Normal School.)

One exemption is given annually to the pupil (boy or girl) of the Montreal High School holding a Commissioner's exemption from the Schools of the Protestant Commissioners, Montreal, who has taken the highest marks at the A. A. Examination, and is recommended by the Commissioners.

§ III. COURSE OF STUDY.

An Undergraduate, in order to attain the Degree of B.A., is required, after passing the First Year Matriculation Examination (see § I), to attend the appointed courses of lectures regularly for four years, and to pass two Examinations in each year, viz., at Christmas and in April. If he fail at any one of these examinations, he is not allowed to proceed with his course until he has passed it subsequently. (See § IV.). Undergraduates are arranged, according to their standing, as of the First, Second, Third or Fourth Year.

The special arrangements made for Honour Students and for those attending lectures in other Faculties also are stated in § V.

ORDINARY COURSE FOR THE DEGREE OF B.A.

FIRST YEAR.

GREEK.—HOMER.—Iliad, Book XXII. Xenophon.—Hellenics, Book I. Studies in History and Literature.

LATIN.—CICERO—De Amicitia. VIRGIL—Aeneid, Bk. VI.—Translation at sight.—Studies in History and Literature.—Latin Prose Composition.

MATHEMATICS.—Arithmetic. Euclid, six books. Algebra, to end of Quadratic equations. Plane Trigonometry, in part.

ENGLISH LANGUAGE AND LITERATURE.

First term.—English Composition, one lecture a week: English Literature, two lectures a week.

Second term.—MILTON's Comus, one lecture a week. English Literature, in continuation of previous course two lectures a week. The whole course will present an outline of English Literature from the Anglo-Saxon period to the Elizabethan inclusive.

CHEMISTRY.—Lectures, chiefly on Elementary and Inorganic Chemistry, with experiments in the class-soom, and Laboratory work if desired; the whole preparatory to the Course in Natural Science.

FRENCH —DAREY, Principes de Grammaire Française.—LA FONTAINE, Choix de Fables.—MOLIÈRE, L'Avare.—Dictation, Colloquial exercises.

Or, instead of French, either of the following :—

GERMAN.—VANDERSMISSEN AND FRASER'S German Grammar ; JOYNES,—German Reader ; Translations, oral and written ; Dictation ; Colloquial exercises.

HEBREW.—(For Theological Students only).—*Elementary Course.*—Reading and Grammar, with oral and written exercises in Orthography and Etymology. Translation and Grammatical Analysis of Genesis.—*Text-Books :*—HARPER'S Elements of Hebrew ; and Introductory Hebrew Method and Manual.

SECOND YEAR.

GREEK.—PLATO.—Apology. Aeschlyus, Prometheus Vinctus. History of Greece.

LATIN.—HORACE.—Epistles, 'Bk. I., 1 to 6 ; Livy, Bk. XXI. Translation at sight, and Latin Prose Composition.

MATHEMATICS.—Arithmetic, Euclid. Algebra and Trigonometry as before.—Logarithms.—Plane Trigonometry, including solution of triangles and applications.

MATHEMATICAL PHYSICS.—Mechanics, one lecture a week.

ENGLISH LITERATURE.—A period of English Literature and one play of Shakspere. During the session of 1893-4—The leading poets of the nineteenth century. SHAKSPERE, A Midsummer Night's Dream [Clarendon Press Edition.] TENNYSON. Gareth and Lynette.

PSYCHOLOGY AND LOGIC.—First Term.—Elementary Psychology (*Text Book :*—MURRAY'S Handbook of Psychology, Bk. I.). Second Term.—Logic (*Text-Book :*—JEVONS' Elementary Lessons in Logic).

BOTANY.—General Morphology and Classification. Descriptive Botany. Flora of Canada. Nutrition and reproduction of plants. Elements of Histology. *Text-Books :*—Gray's Structural Botany. Penhallow's Classification. Penhallow's Guide to the Collection of Plants. Gray's Manual.

FRENCH.—RACINE, Esther.—Ponsard, l'Honneur et l'Argent.—CONTANSEAU, Précis de Littérature Française depuis son origine jusqu'à la fin du XVIIe siècle. Translation into French :—DR. JOHNSON, Rasselas. Dictation. Parsing. Colloquial exercises.

Or, instead of French, either of the following:—

GERMAN.—VANDERSMISSEN AND FRASER'S German Grammar; ADLER'S Progressive German Reader (selections from Sections 3-5); Storm's Immensee; Von Hillern Höher als die Kirche; Dictation; Colloquial exercises Parsing;

HEBREW.—(For Theological Students only.)—*Intermediate Course.*—Grammar.—Dr. Harper's "Elements and Methods."—Translation from the Old Testament.—Exercises:—Hebrew into English, and English into Hebrew.—Syntax.—Reading of the Masoretic notes.

For the Intermediate Examination, see § IV.

THIRD YEAR.

GREEK.—LYSIAS.—Contra Eratosthenem.
EURIPIDES.—Medea.

Or, instead of Greek:—

LATIN.—JUVENAL.—Satires VIII and XIII.
Pliny.—Select Letters.
Latin Prose Composition,

NATURAL PHILOSOPHY.—MATHEMATICAL PHYSICS.—GALBRAITH AND HAUGHTON'S Mechanics, viz., *Statics*, First three chapters, omitting sec. 5, chapter I., and sec. 21, chapter II.; *Dynamics*, subjects of the first five chapters. Maxwell's Matter and Motion (parts). GALBRAITH AND HAUGHTON'S Hydrostatics.

In addition to the above, the Student must take three subjects out of the two following divisions, headed Literature and Science respectively, the selection being at the option of the Student, provided two be taken from one division and one from the other.

I. Literature, &c.

LATIN OR GREEK.—As above, according as Greek or Latin has been chosen previously.

ENGLISH AND RHETORIC.—(A) CHAUCER'S Prologue to Canterbury Tales, ed. Morris. (B) BAIN'S Rhetoric.

MENTAL PHILOSOPHY.—First Term:—The Logic of Induction, as in MILL'S System of Logic, Book III. Second Term: The Psychology of Cognition, as in MURRAY'S Handbook of Psychology, Book II., Part I.

FRENCH.—(If taken in the first two years). CORNEILLE, Cinna.—Cogery—Third French course. Translation into French.—Johnson, Rasselas. French Composition. Dictation.—CONTANSEAU, Précis de Littérature Française, depuis le XVIIIe siècle jusqu'à nos jours.

GERMAN.—(If taken in the first two years).—VANDERSMISSEN AND FRASER'S German Grammar ; SCHILLER—Siege of Antwerp ; LESSING—Minna von Barnhelm ; History of German Literature prior to the 18th century ; German composition ; Dictation.

HEBREW.—(For Theological Students).—*Advanced Course.*—Gesenius' Grammar —Harper's Elements of Syntax. Exercises continued.—Translation from the Old Testament.—Reading of the Masoretic notes.

II. Science.

†OPTICS AND DESCRIPTIVE ASTRONOMY.—Optics (Galbraith and Haughton). Descriptive Astronomy (Lockyer's Elementary Astronomy), English edition ; first five chapters. Students are recommended to use with this an "Easy Guide to the Constellations," by Gall.

†EXPERIMENMAL PHYSICS.—Electricity, Magnetism, and Sound ; or, Light and Heat ; as in Ganot's Treatise.

ZOOLOGY AND PALÆONTOLOGY.—Elements of Animal Physiology, Classification of Animals. Characters of the Classes and Orders of Animals, with Recent and Fossil Examples, taken as far as possible from Canadian Species. Demonstrations in the Museum. *Text-Book.*—Dawson's Handbook of Zoology.

FOURTH YEAR.

GREEK.—ÆSCHINES.—Contra Ctesiphontem.

Or, instead of Greek :—

LATIN.—TACITUS.—Annals, Book I.
Latin Prose Composition.

NATURAL PHILOSOPHY.—*Mathematical Physics.* Mechanics and Hydrostatics (as in Third Year), or Astronomy (GALBRAITH AND HAUGHTON) and Optics (GALBRAITH AND HAUGHTON).

MORAL PHILOSOPHY.—First Term :—The Psychological Basis of Ethics. Second Term :—Ethics Proper, comprising the elementary principles of Jurisprudence and Political Science. *Text-Book :*—Murray's Introduction to Ethics.

In addition to the preceding, the Student must take three subjects out of the two following divisions (headed Literature and Science respectively), the selection being at the option of the Student, provided all three are not taken out of the same division.

I. Literature, etc.

LATIN OR GREEK.—As above, according as Greek or Latin has been taken above.

HISTORY.—Lectures on the History of Europe from the downfall of the Roman Empire of the West to the Reformation. *Text-Books*:—MYERS, Mediæval and Modern History, pp. 1-398; BRYCE, Holy Roman Empire (omit chaps. 6, 8, 9, 13, and Supplementary chapter).

FRENCH.—(If taken in Third Year.)—Bonnefon, Les Ecrivains modernes de la France. Translation into French. Morley's Ideal Commonwealths. Dictation. CORNEILLE, Cinna.

GERMAN.—(If taken in Third Year.—Goethe—Aus meinem Leben; SCHILLER—Wallenstein; German Grammar and Composition; Dictation History of German Literature in the 18th and 19th centuries.

HEBREW.—(For Theological Students.)—Advanced Course continued.

II. Science:

†ASTRONOMY AND OPTICS.—If not chosen as above.

†EXPERIMENTAL PHYSICS.—Light and Heat; or Electricity, Magnetism and Sound, as in GANOT's Treatise.

MINERALOGY AND GEOLOGY.—1. *Mineralogy and Petrography.* Minerals and rocks, especially those important in Geology or useful in the Arts. 2. *Stratigraphy, Chronological Geology and Palæontology.*—Data for determining the relative ages of Formations. Classification according to age. Fauna and Flora of the successive periods. Geology of British America. *Text-Book.*—Dawson's Handbook of Canadian Geology.

For the B.A. Examinations see § IV.

NOTE ON THE ORDINARY COURSE FOR B.A

Instead of two distinct subjects in one of the above divisions in either Third or Fourth Year, the Student may select one subject only, together with an *Additional Course* in the same or any other of his subjects in which such Additional Course may have been provided by the Faculty, under the above rules, provided he has been placed in the first class in the corresponding subject at the preceding Sessional Examination (viz., Intermediate or Third Year, according to standing).

The Additional Course is intended to be more than equivalent in the amount of work involved for any of the other subjects in the division.

(For details of additional courses provided, see under Section XII.)

Undergraduates are required to study either French or German for two years (viz., in the First and Second Years), taking the same language in each year. Any Student failing to pass the Examination at the end of the Second Year will be required to pass a Supplemental Examination, or to take an additional Session in the Language in which he has failed. In addition to the obligatory, there are other lectures, attendance on which is optional.

Students who intend to join any Theological School, on giving written notice to this effect at the beginning of the First Year, may take Hebrew instead of French or German.

Undergraduates who have been previously Partial Students, and have in this capacity attended a particular Course or Courses of Lectures, may, at the discretion of the Faculty, be exempted from further attendance on these Lectures; but no distinction shall in consequence be made between the Examination of such Undergraduates and of those regularly attending Lectures.

† Students claiming exemptions (see § V.) cannot count these subjects for the B.A. if they have not taken the Third Year Mathematical Physics.

HONOUR COURSES.

Third and Fourth Years.

1. Classical Languages and Literature.
2. Mathematics and Physics.
3. Mental and Moral Philosophy.
4. English Language, Literature and History.
5. Geology and other Natural Sciences.
6. Modern Languages with History.
7. Semitic Languages.

Honours are given in Mathematics in the First and Second Years also.

Candidates for Honours are allowed exemptions under conditions stated in § V.

§ IV. EXAMINATIONS.

COLLEGE EXAMINATIONS.

For Students of McGill College only.

1. There are two examinations in each year :—one at Christmas and the other at the end of the Session. In each of these the Students who pass are arranged according to their answering as 1st Class, 2nd Class and 3rd Class.

In the Fourth Year only, the University Examination for B.A. takes the place of the Sessional Examinations

2. Students who fail in any subject at the Christmas Examinations are required to pass a Supplemental Examination (if permission be obtained from the Faculty) on that subject before admission to the Sessional Examinations.

3. Undergraduates who fail in one subject at the Sessional Examinations of the first two years are required to pass a Supplemental Examination in it. Should they fail in this, they will be required in the following Session to attend the Lectures and pass the Examination in the subject in which they have failed, in addition to those of the Ordinary Course, or to pass the Examination alone without attending lectures, at the discretion of the Faculty.

4. Failure in two or more subjects at the Sessional Examinations of the first two years, or in one subject at the third year Sessional Examinations, involves the loss of the Session. The Faculty may permit the Student to recover his standing by passing a Supplemental Examination at the beginning of the ensuing Session. For the purpose of this Regulation, Classics and Mathematics are each regarded as two subjects.

5. A list of those to whom the Faculty may grant Supplemental Examinations will be published after the examinations. The time for the Supplemental Examination will be fixed by the Faculty; the examination will not be granted at any other time, except by special permission of the Faculty, and on payment of a fee of $5.

UNIVERSITY EXAMINATIONS.

For Students of McGill College and of Colleges affiliated in Arts.

I. FOR THE DEGREE OF B.A.

There are three University Examinations: The *Matriculation*, at entrance; the *Intermediate*, at the end of the Second Year; and the *Final*, at the end of the Fourth Year.

1. The subjects of the Matriculation Examination are stated in Section I.

2. In the Intermediate Examination, the subjects are Classics and Pure Mathematics, Logic, and the English Language, with one other Modern Language, or Botany. Theological Students are allowed to take Hebrew instead of a Modern Language. The subjects for the examination of 1894 are as follows:—

Classics.—Greek.—Plato, Apology; Aeschylus, Prometheus Vinctus. Latin.—Horace, Epistles, Bk. I., 1 to 6.—Livy, Bk. XXI. Latin Prose Composition, and Translation at sight of Latin into English.

Mathematics.—Arithmetic.

Euclid, Books I., II., III., IV., VI., and defs. of Book V.
Algebra, to Quadratic Equations, inclusive. (as in Colenso)
Trigonometry, including use of Logarithms.

Logic.—Jevons' Elementary Lessons in Logic.

English.—Spalding's History of English Literature, or Lectures (see course). A paper on the essentials of English History (Buckley). Essay on a subject to be given at the time of the Examination.

With one of the following :—

1. *Botany*.—Structural and Systematic Botany, as in Gray's Text-Book, and descriptive analysis of plants.

2. *French*.—Ponsard :—l'Honneur et l'Argent. Racine :—Esther. Contanseau :—Précis de la Littérature Française, from the beginning to the XVIIIth century. Translation into French :—Rasselas. Grammatical questions.

3. *German*.—Vandersmissen & Fraser's German Grammar; Adler's Progressive Reader (selections from secs. 3 to 5); Storm's Immensee; Von Hillern—Höher als die Kirche; Dictation; Colloquial exercises; Translations, oral and written.

4. *Hebrew*.—Genesis—chap. III., IV., XXXVII. Exodus—chap. XV. Deuteronomy,—chap. V. Exercises: Hebrew into English, and English into Hebrew. Syntax. Reading of the Masoretic notes and of the Septuagint version.

3. For the Final or B.A. Ordinary Examination the subjects are those appointed as obligatory in the Third and Fourth Years, viz., Latin or Greek; Mathematical Physics (Mechanics and Hydrostatics), or Astronomy and Optics; Moral Philosophy; and those three subjects which the Candidate may have selected for himself in the Third and Fourth Years. (See § III.)

The subjects in detail for 1894 are as follows :—

1. *Greek*.—Æschines, Contra Ctesiphontem; Euripides, Medea.

Greek History.—From the close of the Peloponnesian war to the death of Philip. (Or Latin, as follows) :—

2. *Latin*.—Tacitus, Annals, Book I.; Juvenal, Satt. VIII. and XIII.

Roman History.—The twelve Cæsars.

Mathematical Physics.

1. Mechanics and Hydrostatics, as in Galbraith & Haughton's text-books, with parts of Maxwell's "Matter and Motion"; or *Optics and Astronomy, as in Galbraith & Haughton's text-books.

Mental and Moral Philosophy.

Murray's Introduction to Ethics.
*Additional Courses as in § XII.

Natural Sciences.

Mineralogy and Geology, as in Dana's Manual and Dawson's Handbook of Canadian Geology.
*Practical Geology and Palæontology ; or Practical chemistry, as in § XII.

Experimental Physics.

Light and Heat. (See courses of Lectures, § XII.)

History.

Myers :—Mediæval and Modern History ; Bryce's Holy Roman Empire (omit Chaps. 6, 8, 9, 13, and Supplementary Chapter).
*Additional Course as in § XII.

French.

The Course of French for the Fourth Year.
*The subjects of the Additional Course as in § XII.

German.

The course of German for the Fourth Year.
*Additional Course as in § XII.

Hebrew (Theological Students).

Genesis XLIX ; Psalms XXIV to XXVII ; Isaiah I to V inclusive ; Ecclesiastes X to XII. Translation at Sight.
Gesenius' Grammar ; Harper's Elements of Syntax ; Reading of the Masoretic notes and of the Septuagint Version.
Additional Courses (see § XII.).

For details of each subject, see Courses of Lectures, § XII.

At the B.A. Ordinary Examination, of the Candidates who obtain the required aggregate of marks, only those who pass in the First Class in three of the departments, and not less than Second Class in the remainder, shall be entitled to be placed in the First Class for the Ordinary Degree.

4. Every Candidate for the Degree of B.A. is required to make and sign the following declaration :—

"Ego ———polliceor sancteque recipio me, pro meis viribus

studiosum fore communis hujus Universitatis boni, et operam daturum ut ejus decus et dignitatem promoveam."

II. FOR THE DEGREE OF M.A.

1. A Candidate must be a Bachelor of Arts of at least three years standing.

Thesis.

2. He is required to prepare and submit to the Faculty a thesis on some literary or scientific subject, under the following rules:—

(*a*) The subject of the thesis must be submitted to the Faculty before the thesis is presented.

(*b*) A paper read previously to any association, or published in any way cannot be accepted as a thesis.

(*c*) The thesis submitted becomes the property of the University, and cannot be published without the consent of the Faculty of Arts.

(*d*) The thesis must be submitted before some date to be fixed annually by the Faculty, not less than two months before proceeding to the Degree.

The last day in the session of 1893-94 *for sending in Theses for M.A. will be Jan.* 31*st*, 1894.

Examination.

3. All Candidates, except those who have taken First or Second Rank B.A. Honours or have passed First Class in the Ordinary Examinations for the Degree of B.A., are required to pass an examination also, either in Literature or in Science, as each Candidate may select.

(*a*) The subjects of the Examination in *Literature* are divided into two groups as follows:—

Group A.—1. Latin. 2. Greek. 3. Hebrew.

Group B.—1. French. 2. German. 3. English.

(*b*) The subjects for the Examination in *Science* are divided into three groups:—

Group A.—1. Pure Mathematics (Advanced or Ordinary). 2 Mechanics (including Hydrostatics). 3. Astronomy. 4. Optics

Group B.—1. Geology and Mineralogy. 2. Botany. 3. Zoology. 4. Chemistry.

Group C.—1. Mental Philosophy. 2. Moral Philosophy. 3. Logic. 4. History of Philosophy.

(*c*) Every candidate in Literature is required to select two subjects out of one group in the literary section, and one out of the other group in the same section for the Examination. Every Candidate in Science is required to select two out of the three groups in the Scientific section ; and in one of the groups so chosen to select two subjects, and in the other group one subject for Examination.

(*d*) One of the subjects selected as above will be considered the principal subject (being so denoted by the candidate at the time of application), and the other two as subordinate subjects.

(*e*) The whole examination may be taken in one year, or distributed over two or three years, provided the examination in any one subject is not divided.

For further details of the examination, application must be made to the Faculty before the above date. For fees see § XI. (In case of failure the candidate may present himself in a subsequent year without further payment of fees.)

Lectures to Bachelors of Arts.

Lectures are open to Bachelors of Arts who are candidates for M.A., the sessional examinations corresponding to these lectures being reckoned as parts of the M.A. examination. The subjects are Greek, Latin, English, Mental and Moral Philosophy, Chemistry, Botany, Geology and Mineralogy, French, German.

III. FOR THE DEGREE OF LL.D.

This Degree is intended as an incentive to and recognition of special study by Masters of Arts in some branch of Literature or Science. The thesis or short printed treatise referred to below is regarded as the chief test of the candidate's mastery of the subject he has chosen and of his power of handling it. A very wide range of choice is allowed in order to suit individual tastes.

The following are the regulations :—

I. Candidates must be Masters of Arts of at least twelve years tanding. Every candidate for the Degree of LL.D. in course is

required to prepare and submit to the Faculty of Arts, not less than three months before proceeding to the degree, twenty-five printed copies of a thesis on some Literary or Scientific *subject previously approved* by the Faculty, and possessing such a degree of Literary or Scientific merit, and evidencing such originality of thought or extent of research as shall, in the opinion of the Faculty, justify it in recommending him for that degree.

N.B.—The subject should be submitted before the Thesis is written.

II. Every Candidate for the Degree of LL.D. in Course is required to submit to the Faculty of Arts, with his thesis, a list of books, treating of some one branch of Literature or of Science satisfactory to the Faculty, in which he is prepared to submit to examination, and on which he shall be examined, unless otherwise ordered by vote of the Faculty. For fees see § XI.

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§ V. SPECIAL PROVISIONS FOR CANDIDATES FOR HONOURS AND FOR PROFESSIONAL STUDENTS.

The Honour lectures are open to Undergraduates only, and no Undergraduate is permitted to attend unless (*a*) he has been placed in the First Class in the subject at the preceding Sessional Examination, if there be one, and has (*b*) satisfied the Professor that he is otherwise qualified. (*c*) While attending lectures his progress must be satisfactory to the Professor. If not satisfactory, he may be notified by the Faculty to discontinue attendance.

I. Candidates for Honours in the Second Year.

Candidates for Honours in the Second Year who have obtained Honours in the First Year may omit the lectures and examinations either in Modern Languages (or Hebrew) or Botany, giving notice of the subject at the beginning of the session.

II. Candidates for Honours in the Third Year.

Every Candidate for Honours in the Third Year must, in order to obtain exemptions, have passed the Intermediate Examination, and must in the Examinations of the Second Year have taken First Rank Honours, if Honours be offered in the subjects, or if not, First Class at the Ordinary Sessional Examinations in the subject in which he proposes to compete for Honours, and be higher than Third Class in the majority of the remaining subjects; such Candidates shall be entitled in the Third Year to exemption from lectures and examinations in any

one of the subjects required by the general rule (see § III), except that in which he is a Candidate for Honours. A Candidate for Honours in the Third Year who failed to obtain Honours shall be required to take the same examinations for B.A. as the ordinary Undergraduates.

III. Candidates for B.A. Honours.

A Student who has taken Honours of the first rank in the Third Year, and desires to be a Candidate for B.A. Honours, shall be required to attend two only of the courses of lectures given in the ordinary departments, and to pass the two corresponding examinations only at the ordinary B.A. Examination. Candidates, however, who at the B.A. Examinations obtain Third Rank Honours, will not be allowed credit for these exemptions at the end of the Session, unless the Examiners certify that the knowledge shown of the whole Honour Course (Part II. as well as Part I.) is sufficient to justify it. A Student who has taken Second Rank Honours in the Third Year, and desires to be a Candidate for B.A. Honours in the same subject, shall be allowed to continue in the Fourth Year the study of the same departments that he has taken in the Third Year, but shall be required to take the same number of subjects as in the Ordinary Course.

NOTE.—For subjects of Ordinary Course see § III.

IV. Professional Students.

Students of the Third and Fourth Years, matriculated in the Faculties of Law, Medicine, or Applied Science, of the University, or in any affiliated Theological College, are entitled to exemption from any one of the Ordinary subjects required in the Third and Fourth Years. (For rule concerning "Special Certificates," see § IV.)

To be allowed these privileges in either year, they must give notice at the commencement of the session to the Dean of the Faculty of Arts of their intention to claim exemptions as Professional Students, and must produce at the end of the session certificates of attendance on a full course of Professional Lectures during the year for which the exemption is claimed.

V. Students of the University attending Affiliated Theological Colleges.

1. Such students are subject to the regulations of the Faculty of Arts in the same manner as other Students.

2. The Faculty will make formal reports to the Governing body of the Theological College which any such students may attend, as to:—(1) their conduct and attendance on the classes of the Faculty; and (2) their standing in the several examinations; such reports to be furnished after the Christmas and Sessional Examinations severally, if called for.

3. Undergraduates are allowed no exemptions in the course for the Degree of B.A. until they have passed the Intermediate Examination; but they may take Hebrew in the First or Second Years, instead of French or German.

4. In the Third and Fourth Years they are allowed exemptions, as stated above.

*Any student who, under any of the above rules, desires to take Experimental Physics is required to take Mechanics and Hydrostatics also, in the Third Year.

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§ VI. MEDALS, HONOURS, PRIZES AND CLASSING.

1. Gold Medals will be awarded in the B.A. Honour Examinations to Students who take the highest Honours of the First Rank in the subjects stated below, and who shall have passed creditably the Ordinary Examinations for the Degree of B.A., provided they have been recommended therefor to the Corporation by the Faculty on the report of the Examiners:—

The *Henry Chapman Gold Medal*, for Classical Languages and Literature.
The *Prince of Wales Gold Medal*, for Mental and Moral Philosophy.
The *Anne Molson Gold Medal*, for Mathematics and Natural Philosophy.
The *Shakespere Gold Medal*, for the English Language, Literature and History.
The *Logan Gold Medal*, for Geology and other Natural Sciences.
Major Hiram Mills Gold Medal, for a subject to be chosen by the Faculty from year to year.

If there be no Candidate for any Medal, or if none of the Candidates fulfils the required conditions, the Medal will be with held, and the proceeds of its enpowment for the year may be devoted to prizes in the subject for which the Medal was intended. For details, see announcements of the several subjects below.

2. HONOURS of First, Second or Third Rank will be awarded to those Undergraduates who have successfully passed the Examinations in any Honour Course established by the Faculty, and have also passed creditably the ordinary Examinations in all the subjects proper to their year.

The Honour Examinations are each divided into two parts, separated by an interval of a few days, under the following regulations:—

(*a*) No Candidate will be admitted to Part II., unless he has shown a thorough and accurate knowledge of the course appointed for Part I.

(*b*) The names of the successful Candidates in Part I. will be announced before Part II. begins.

(*c*) First or Second Rank Honours will be awarded to those Candidates only who are successful in Part II.

(*d*) Third Rank Honours will be awarded to those who are successful in Part I alone.

By an Order of the Lieutenant-Governor of Ontario in Council, Honours in this University confer the same privileges in Ontario as Honours in the Universities of that Province as regards certificates of eligibility for the duties of Public School Inspectors, and as regards exemption from the non-professional Examination of Teachers for first-class Certificates for Grades "A and B."

3. SPECIAL CERTIFICATES will be given to those Candidates for B.A. who shall have been placed in the First Class at the ordinary B.A. Examination; have obtained three-fourths of the maximum marks in the aggregate of the studies proper to their year; are in the First Class in not less than half the subjects, and have no Third Class. At this examination, no Candidate who has taken exemptions (see § V.) can be placed in the First Class unless he has obtained First Class in four of the departments in which he has been examined; he must have no Third Class.

4. CERTIFICATES of High General Standing will be granted to those Undergraduates of the first two years who have obtained three-fourths of the maximum marks in the aggregate of the Studies proper to their year, are in the First Class in not less than half the subjects, and have not more than one Third Class. In the Third Year the conditions are the same as for the Special Certificate for B.A.

5. PRIZES OR CERTIFICATES to those Undergraduates who may have distinguished themselves in the studies of a particular class and have attended all the other classes proper to their year.

6. His Excellency Lord Stanley has been pleased to offer a GOLD MEDAL for the study of Modern Languages and Literature, with History, or for First Rank General Standing as may be announced.

(*a*) The Regulations for the former are as follows:—

(1) The subjects for competition shall be French and German, together with a portion of the History prescribed for the present Honour Course for the Shakspeare Medal. Information concerning the History may be obtained from the Lecturer on History.

(2) The Course of Study shall extend over two years, viz., the Third and Fourth Years.

(3) The successful Candidate must be capable of speaking and writing both languages correctly.

(4) There shall be examinations in the subjects of the course in both the Third and Fourth Years, at which Honours may be awarded to deserving Candidates.

(5) The general conditions of competition, and the privileges as regards exemptions, shall be the same as for the other Gold Medals in the Faculty of Arts.

(6) Students from other Faculties shall be allowed to compete, provided they pass the examinations of the Third and Fourth Years in the above subjects.

(7) Candidates desiring to enter on the Third Year of the Course, who have not obtained first-class standing at the Intermediate or Sessional Examinations of the Second Year in Arts, are required to pass an examination in the work of the first two years of the Course in Modern Languages, if called on to do so by the Professors.

(8) The subjects of Examination shall be those of the Honour Course in Modern Languages.

(*b*) The Regulations for the Gold Medal, if awarded for First Rank General Standing, are as follows :—

(1) The successful Candidate must take no exemptions or substitutions of any kind, whether Professional or Honour, in the Ordinary B.A. Examinations.

(2) He shall be examined in the following subjects :—

(*a*) *Classics* (both languages) ; (*b*) *Mixed Mathematics :—Mechanics Hydrostatics, Optics, Astronomy ;* (*c*) *Moral Philosophy ;* and any *two* of the following subjects, or any *one* of them with its Additional Course ; (*d*) Natural Science ; (*e*) Experimental Physics ; (*f*) English and History ; (*g*) French ; (*h*) German.

(3) His answering must satisfy special conditions laid down by the Faculty.

(4) The same Candidate cannot obtain the Gold Medal for First Rank General Standing and also a Gold Medal for First Rank Honours.

7. The Neil Stewart Prize of $18 is open to all Undergraduates of this, and also to Graduates of this or any other University, studying Theology in any College affiliated to this University, under the following rules :—

(1) The prize will not be given for less than a thorough examination on Hebrew Grammar passed in the First Class, in reading and translating the Pentateuch, and such poetic portions of the Scriptures as may be determined.

(2) In case competitors should fail to attain the above standard, the prize

will be withheld, and a prize of $36 will be offered in the following year for the same.

[Course for the present year :—Hebrew Grammar (Gesenius); Translation and analysis of Exodus; Isaiah XL. to the end of the book.

(3) There will be two Examinations of three hours each—one in Grammar and the other in Translation and Analysis.

This Prize founded by the late Rev. C. C. Stewart, M.A., and terminated by his death, was re-established by the liberality of the late Neil Stewart, Esq., of Vankleek Hill.

8. EARLY ENGLISH TEXT SOCIETY'S PRIZE.—The prize, the annual gift of the Early English Text Society, will be awarded for proficiency in (1) Anglo-Saxon, (2) Early English before Chaucer.

The subjects of Examination will be :—

(1) The Lectures of the Third and Fourth Years on Anglo-Saxon.

(2) Specimens of Early English, Clarendon Press Series, ed. Morris and Skeat, Part II., A.D. 1298—A.D. 1393. The Lay of Havelock the Dane (Early English Text Society, ed. Skeat.).

9. NEW SHAKSPERE SOCIETY'S PRIZE.—This Prize, the annual gift of the New Shakspere Society, open to Graduates and Undergraduates, will be awarded for a critical knowledge of the following plays of Shakspere :—

Hamlet; Macbeth; Othello; King Lear.

10. "CHARLES G. COSTER MEMORIAL PRIZE."—This Prize, intended as a tribute to the memory of the late Rev. Chas. G. Coster, M.A., Ph.D., Principal of the Grammar School, St. John, N.B., is offered by Colin H. Livingstone, Esq., B.A., to the Undergraduates (men or women) from the Maritime Provinces, Nova Scotia, New Brunswick and Prince Edward Island. In April, 1894, it will be awarded to that Undergraduate of the First, Second or Third Year, from the above Provinces, who, in the opinion of the Faculty, has passed the most satisfactory Sessional Examinations, under certain conditions laid down by the donor.

11. SCIENCE SCHOLARSHIPS GRANTED BY HER MAJESTY'S COMMISSION FOR THE EXHIBITION OF 1851.—These scholarships of £150 sterling a year in value are tenable for two or, in rare instances, three years. They are limited, according to the Report of

the Commission, "to those branches of Science (such as Physics, Mechanics and Chemistry) the extension of which is specially important for our national industries." Their object is, not to facilitate ordinary collegiate studies, but "to enable students to continue the prosecution of science with the view of aiding in its advance or in its application to the industries of the country."

Two nominations to these scholarships have already been placed by the Commission in 1891 and 1893 at the disposal of McGill University and have been awarded.

When nominations are offered they are open to Students of not less than three years standing in the Faculties of Arts or Applied Science, and are tenable at any University or at any other Institution approved by the Commission.

12. The names of those who have taken Honours, Certificate or Prizes will be published in order of merit; with mention, in the case of Students of the First and Second Years, of the schools in which their preliminary education has been received.

§ VII. LICENSED BOARDING HOUSES.

1. All Students under 21 years of age, not residing with parents for guardians, nor belonging to a Theological College, shall reside in licensed boarding-houses, unless they produce written authority from parents or guardians to reside elsewhere.

2. Persons applying for a license to keep boarding-houses shall produce evidence satisfactory to the Principal as to their character and fitness, and the suitability of the house for the health and comfort of the Students. They shall also supply him with a statement of charges.

3. The keeper of the boarding house shall report immediately to the Principal the entrance or departure of any Student, and any instance of immorality or disorderly conduct.

(Note. Board and rooms can be obtained at a cost of from $15 to $25 per month: Rooms only, from $4 to $10 per month: Board only, from $12 to $18 per month.)

§ VIII. ATTENDANCE AND CONDUCT.

All Students shall be subject to the following regulations for attendance and conduct:—

1. A Class-book shall be kept by each Professor or Lecturer, in which the presence or absence of Students shall be carefully noted; and the said Class-book shall be submitted to the Faculty at all their ordinary meetings during the Session.

2. Each Professor shall call the roll immediately at the beginning of the lecture. Credit for attendance on any lecture may be refused on the grounds of lateness, inattention or neglect of study, or disorderly conduct in the class-room. In the case last mentioned the Student may, at the discretion of the Professor, be required to leave the class-room. Persistence in any of the above offences against discipline, after admonition by the Professor, shall be reported to the Dean of Faculty. The Dean may, at his discretion, reprimand the student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from Classes.

3. Absence from any number of lectures can only be excused by necessity or duty, of which proof must be given, when called for, to the Faculty. The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a session shall in each case be determined by the Faculty.

4. While in the College, or going to or from it, students are expected to conduct themselves in the same orderly manner as in the class rooms. Any Professor observing improper conduct in the College buildings or grounds may admonish the student, and, if necessary, report him to the Dean.

5. Every student is required to attend regularly the religious services of the denomination to which he belongs, and to maintain, without as well as within the walls of the College, a good moral character.

6. When students are brought before the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, impose fines, disqualify from competing for prizes or honours, suspend from classes, or report to the Corporation for expulsion.

7. Any student who does not report his residence on or before November 1st in each year is liable to a fine of one dollar.

8. Any student injuring the furniture or buildings will be required to repair the same at his own expense, and will, in addition, be subject to such other penalty as the Faculty may see fit to inflict.

9. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shall be immediately reported to the Principal, or, in his absence, to the Vice-Principal.

[NOTE.—All Students are required to appear in Academic dress while in or about the College buildings. Students are requested to take notice that petitions to the Faculty on any subject cannot, in general, be taken into consideration, except at the regular meetings appointed in the Calendar.]

§ IX. LIBRARY.

Librarian;—C. H. GOULD, B.A.
Assistant Librarian:—H. MOTT.

Extract from the Regulations.

1. The books in the Library are classed in two divisions:—1st, Those which may be lent; and 2nd, those which may not, under any circumstances, be removed from the Library. The classification shall be determined by the Librarian.

2. Students in the Faculty of Arts or of Applied Science, who have paid the Library fee, may borrow books on depositing the sum of $5 with the Bursar, which deposit, after the deduction of any fines due, will be repaid at the end of the Session on the certificate of the Librarian or his assistant that the books have been returned uninjured.

3. Students may borrow not more than three volumes at one time, except on the recommendation in writing of a Professor for specified books, and must return them within two weeks, on penalty of a fine of 5 cents a volume for each day of detention. An additional deposit of $4 entitles a student to borrow two extra volumes.

4. A student incurring fines beyond the sum total of $1 shall be debarred the use of the Library until they have been paid.

5. Any volume, or volumes, lost or damaged by any person shall be replaced or paid for at such rates as the Library Committee may direct; and such rate of payment shall be determined by the value of the book itself, or of the set to which the volume belongs. And, further, any person found guilty of wilfully damaging any book, either by defacement or mutilation, or in any other way, shall be excluded from the Library, and shall be debarred from the use thereof for such time as the Library Committee may determine.

6. Graduates in any of the Faculties, on making a deposit of $5, are entitled to the use of the Library, subject to the same rules and conditions as Students; but they are not required to pay the annual Library fee.

7. Graduates residing beyond the City limits, and applying for the loan of books from the Library, shall not receive such books without the sanction of the Librarian, and depositing the value of the books with the Bursar of the College.

8. Members of the McGill College Book Club, on presenting annually a certificate of their membership, are by special regulation of Corporation entitled to the use of Library on the same conditions as Graduates, but they are not required to make a deposit.

9. Students in the Faculties of Law and Medicine, who have paid the Library fee to the Bursar, may read in the Library, and, on depositing the sum of $5 with the Bursar, may borrow books on the same conditions as Students in Arts. They are required to present their Matriculation Tickets to the Bursa and to the Librarian or his assistant.

10. Persons not connected with the College may consult books in the Library on obtaining an order from any of the Governors, or from the Principal, or the Dean of the Faculty of Arts or of Applied Science, or from any of the Professors in the said Faculties. Donors of books or money to the amount of Fifty dollars may at any time consult books on application to the Librarian.

11. The Library is kept open from 9 a.m. to 4 p.m. daily, and no person shall be allowed in the Library except during these hours.

12. No person, other than the Librarian and the assistant, is allowed to enter the alcoves, or take down books from the shelves, except members of Corporation, and Professors, or those whom any of the above may accompany personally.

13. A person desiring to read or to borrow a book, which he has ascertained from the Catalogue to be in the Library, will fill up one of the blank forms provided for Readers and Borrowers respectively, and hand it to the Library Assistant who will thereupon procure him the book.

14. Readers must return the books they have obtained to the Library Assisant before leaving the Library.

15. No conversation is permitted in the Library.

§ X. PETER REDPATH MUSEUM.

1. The Museum will be open every lawful day from 9 a.m. till 5 p.m., except when closed for any special reason by order of the Principal or Committee.

2. Students will obtain tickets of admission from the Principal on application.

3. Students will enter by the front door only, except when going to lec tures.

4. Any Students wilfully defacing or injuring specimens, or removing the same, will be excluded from access to the Museum for the Session.

§ XI. FEES.

All fees and fines are payable to the Bursar of the College.

The scale of fees here given comes into operation in September, 1893.

I. *Undergraduates.*

$35.00 per session including the fee heretofore paid for the B. A. degree,

II. *Partial Students.*

$8.00 per session for one class including the use of the Library; $4.00 per session for each additional class.

III. *Miscellaneous.*

Laboratory and Practical Classes, viz., *Chemistry*, *Botany*, *Physics*, each per session (special)	10 00
Elocution (special)	2 00

Petrography (special)	5 00
Gymnasium	2 50
Supplemental Examination, at date fixed by Faculty	2 00
Supplemental Examination, when granted at any other time than that fixed by the Faculty	5 00
Fee for a certificate of standing, if granted to a student on application	1 00
Fee for a certificate of standing, if accompanied by a statement of classification in the several subjects of examination	2 00
Examination Fee for Students of Affiliated Theological Colleges who present themselves for the entrance examination without intending to become Undergraduates	10 00
Matriculation Certificate, for Students intending to enter the Medical Faculty	2 50

N.B.—The lectures in one subject in any one of the four college years constitute a "Course."

Graduates in Arts are allowed to attend, without payment of fees, all lectures, except those noted as requiring a special fee.

The fees must be paid to the Secretary, and the tickets shown to the Dean, within a fortnight after the commencement of attendance in each session. In case of default, the Student's name will be removed from the College books, and can be replaced thereon only by permission of the Faculty, and on payment of a fine of $2.

[All fines are applied to the purchase of books for the Library.]

Fee for the degree of M.A	10 00*
" " " *LL.D*	50 00*

If the degree of M.A. be granted, with permission to the Candidate, on special grounds, to be absent from Convocation, the fee is $25.00.

The M.A. or LL.D. fee must be sent with the thesis to the Secretary of the University. This is a condition essential to the reception of the application. The Secretary will then forward the thesis to the Dean of the Faculty.

*A Bachelor of Arts or a Master of Arts intending to proceed to a higher Degree is required, in *addition* to the above, to keep his name on the books of the University, by the annual payment of a fee of $2 to the Registrar of the University. He may, if he prefer it, compound for the above annual fees, by the payment of $6 in one sum for the Master's Degree, or $30 for the Doctor's Degree, on or before the date of application for the Degree.

Extract from the Regulations of the Board of Governors for Election of Fellows under Chap. V. of the Statutes of the University.

"From and after the graduation of 1888, all new Graduates shall "pay a Registration Fee of $2.50 at the time of their graduation,

" in addition to the Graduation Fee ; and shall be entered in the " University list as privileged to vote, and shall have voting-papers " mailed to them by the Secretary."

§ XII. COURSES OF LECTURES.

I. ORDINARY COURSE.

1. CLASSICAL LITERATURE AND HISTORY.

(Major H. Mills Professorship of Classics.)

Professor :—Rev. G. Cornish, M.A., LL.D.

Associate Professor :—A. J. Eaton, M.A., Ph.D.

Sessional Lecturer :—John L. Day, B.A.

GREEK.

First Year.—Homer.—Iliad, Book XXII. Xenophon.—Hellenics, Book I.
Second Year.—Plato.—Apology. Prometheus Vinctus. History of Greece.
Third Year.—Lysias.—Contra Eratosthenem. Euripides.—Medea.
Fourth Year.—Æschines.—Contra Ctesiphontem.

LATIN.

First Year.—Cicero.—De Amicitia. Virgil.—Aeneid, Bk. VI. Latin Prose Composition and Translation at Sight.—Bender's Roman Literature.—History of Rome

Second Year.—Livy, Bk. XXI.—Horace, Epistles, Bk. I., 1 to 6.—Translation at sight of passages from Cicero and Livy, and Latin Prose Composition based upon selections from the same authors.

Third Year.—Juvenal.—Satires VIII. and XIII. Pliny, Select Letters Latin Prose Composition,

Fourth Year.—Tacitus.—Annals, Book I. Latin Prose Composition.

In the work of the Class the attention of the Student is directed to the collateral subjects of History, Antiquities and Geography ; also to the grammatical structure and affinities of the Greek and Latin Languages, and to Prosody and Accentuation.

The Latin pronunciation adopted in the lectures is based on the scheme issued by the Cambridge Philological Society (London : Trubner & Co.).

In Greek, the system of pronunciation, outlined in the preface of Goodwin's Greek Grammar, is recommended to the attention of students.

Number of lectures in Fourth Year—two weekly, or, at the discretion of the Professor, three.

2. ENGLISH LANGUAGE AND LITERATURE.

(MOLSON PROFESSORSHIP.)

Professor:—CHAS. E. MOYSE, B.A.

Sessional Lecturer:—W. J. MESSENGER, B.A.

First Year.—English Language and Literature. Three lectures a week, Until Christmas the work of the Class will consist of exercises in English Composition once a week. Two lectures a week will be given to the study of English. After Christmas the course on English Literature will be continued and brought down to the end of the Elizabethan Period. Students are recommended to use Prof. Henry Morley's Charts of English Literature, and to read the first chapter of Henry Morley's English Writers (Cassell, 1887).*

Second Year.—A period of English Literature, one play of Shakspeare and a modern poem. One Lecture a week before Christmas; two lectures a week after Christmas. During the session of 1893-94, the leading poets of the Nineteenth Century will form the subject of the Lectures. Shakspeare—A Midsummer Night's Dream (Clarendon Press Edition.) Tennyson—Gareth and Lynette.

Third Year.—*A.* Chaucer's Prologue to Canterbury Tales. Lectures once a week; *Text-Book*:—Chaucer's Prologue, etc., ed. Morris. *B* Rhetoric. Lecture once a week; *Text-Book*:—Bain's Rhetoric.

Fourth Year.—History. The lectures (once a week) will be a sketch of general European History from the fall of the Roman Empire of the West to the Discovery of the New World. The use of Professor Nichol's Tables of European History is recommended.

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3. MENTAL AND MORAL PHILOSOPHY.

(JOHN FROTHINGHAM PROFESSORSHIP OF MENTAL AND MORAL PHILOSOPHY.)

Professor:—REV. J. CLARK MURRAY, LL.D.

Lecturer:—PAUL T. LAFLEUR, M.A.

Second Year.—First term:—Elementary Psychology. (*Text-Book*:—Murray's Handbook of Psychology, Book I.) Second Term:—Logic. *Text-Book*, —Jevons' Elementary lessons in Logic.)*

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* The prizes are awarded on the work of the whole Session.

Third Year.—First Term:—The Logic of Induction, as in Mill's System of Logic, Book III. Second Term:—The Psychology of Cognition, as in Murray's Handbook of Psychology, Book II., Part I.

Fourth Year.—First Term:—The Psychological Basis of Ethics. Second Term:—Ethics Proper, comprising the elementary principles of Jurisprudence and Political Science. *Text-Book*:—Murray's Introduction to Ethics.

In the Third and Fourth Years, Students are also required to write occasional essays on philosophical subjects.

For Additional Courses see Honour Course.

4. FRENCH LANGUAGE AND LITERATURE.

Professor:—P. J. Darey, M.A., B.C.L., LL.D., Officier d'Académie.

Sessional Lecturer:—Rev. J. L. Morin, M.A.

First Year.—Darey—Principes de Grammaire Française. La Fontaine—Choix de fables. Molière—l'Avare. Dictation. Colloquial exercises.

Second Year.—Racine—Esther. Ponsard—l'Honneur et l'Argent. Contanseau—Précis de Littérature Française, depuis son origine jusqu'à la fin du XVIIe siècle. Translation into French:—Dr. Johnson—Rasselas. Dictation. Parsing. Colloquial exercises.

Third Year.—Corneille, Cinna. Cogery—Third French course. Translation into French:—Johnson—Rasselas. Dictation. Contanseau—Précis de Littérature Française, depuis le XVIIIe siècle jusqu'à nos jours.

Fourth Year.—Cogery—Third French course. Bonnefon—Les Ecrivains modernes de la France. Translation into French:—Morley—Ideal Commonwealths. French Composition. Dictation. Corneille, Cinna.

For Additional Courses see Honour Lectures.

The Lectures in the Third and Fourth Years are given in French.

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5. GERMAN LANGUAGE AND LITERATURE.

Lecturer:—L. R. Gregor, B.A.

First Year.—Vandersmissen and Fraser's German Grammar; Joynes' German Reader: Dictation; Colloquial exercises.

Second Year.—Vandersmissen and Fraser's German Grammar; Adler's Progressive German Reader (selections from Sections 3-5); Storm's Immensee; Von Hillern—Höher als die Kirche; Parsing; Dictation; Colloquial exercises.

Third Year.—Vandersmissen and Fraser's German Grammar; Lessing—Minna von Barnhelm; Schiller—Siege of Antwerp; History of German Literature prior to the 18th century; German Composition; Dictation.

Fourth Year.—German Grammar and Composition; Goethe—Aus meinem Leben; Schiller—Wallenstein; History of German Literature in the 18th and 19th centuries.

For Additional Courses see Honour Lectures.

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6. HEBREW AND ORIENTAL LITERATURE.

Professor:—Rev. D. Coussirat, B.A., D.D., Officier d'Académie.

Elementary Course.—Reading and Grammar, with oral and written exercises in Orthography and Etymology.—Translation and Grammatical Analysis of Genesis.—*Text-Books.*—Harper's Elements of Hebrew: and Introductory Hebrew Method and Manual.

Intermediate Course.—Grammar.—Dr. Harper's "Elements and Method."—

Translation from the Hebrew Bible.—Exercises.—Hebrew into English and English into Hebrew.—Syntax.—Reading of the Masoretic notes.

Advanced Course.—Gesenius' Grammar, and Harper's Elements of Syntax.—Exercises continued.—Translation from the Hebrew Bible.—Reading of the Masoretic notes and of the Septuagint Version.

The course comprises Lectures on the above Language and its Literature in particular, its genius and peculiarities with a general notice of the other Oriental Languages. Comparative Philology, affinity of Roots, etc., also receive due attention, while the portions selected for translation will be illustrated and explained by reference to Oriental manners, customs, history, etc.

For Additional Course see Honour Lectures.

7. MATHEMATICS AND NATURAL PHILOSOPHY.

(PETER REDPATH PROFESSORSHIP OF NATURAL PHILOSOPHY.)

Professor:—ALEXANDER JOHNSON, M.A., LL.D.

In the ordinary work of the First Year, assistance will be given by G. H. Chandler, M.A., Professor of Practical Mathematics in the Faculty of Applied Science, and by H. M. Tory, B.A., Sessional Lecturer.

First Year.—MATHEMATICS.—Arithmetic.—Euclid, Books, 1, 2, 3, 4, 6, with definitions of Book 5 (omitting propositions 27, 28, 29 of Book 6); Todhunter's Edition—or Hall and Stevens'; the latter is recommended to Candidates for Honours especially. Colenso's Algebra (Part I) to end of Quadratic Equations.—Galbraith and Haughton's Plane Trigonometry to beginning of solution of Plane Triangles.

Second Year.—MATHEMATICS.—Arithmetic, Euclid, Algebra and Trigonometry as before.—Nature and use of Logarithms.—Remainder of Galbraith and Haughton's Plane Trigonometry.

PHYSICS.—*Elementary Mechanics.*—One lecture a week up to March. An examination will be held then, which must be passed in order to secure credit for attendance on the lectures.

The course for the Intermediate University Examination consists of the Mathematics for the first two years.

Third Year.—MATHEMATICAL PHYSICS.—Galbraith and Haughton's Mechanics viz.: *Statics*, first 3 chapters, omitting sec. 5, chapter 1, and sec. 21, chapter II; *Dynamics*, subjects of the first 5 chapters; the corresponding parts of Clerk Maxwell's "Matter and Motion"; Galbraith and Haughton's Hydrostatics. The lectures on this subject begun in the previous year will end about Christmas.

(*Optional, but open to those only who have studied the above Mathematical Physics*).—OPTICS (Galbraith and Haughton). ASTRONOMY (Lockyer's Elementary Astronomy, English edition; first five chapters, viz.: The Stars and Nebulæ; The Sun; The Solar System; Apparent movements; Time). Stu-

dents are recommended to use with this an "Easy Guide to the Constellations," by Gall.

Fourth Year.—ASTRONOMY.—(*Optional*) Galbraith and Haughton's Astronomy.—The lectures on this subject will be given before Christmas.

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8. EXPERIMENTAL PHYSICS.

(W. C. McDONALD PROFESSORSHIP.)

Professor:—JOHN COX, M.A.

Third Year.—Sound, Electricity and Magnetism.—Laws of Energy.

Fourth Year.—Heat and Light.

In each year two hours a week will be devoted to fully illustrated experimental Lectures on the subjects named. Courses of practical work in the Physical Laboratory in the McDonald Physics building are arranged so that experiments, chiefly quantitative, bearing on the subjects treated in the Lectures, may be performed by the Students themselves. Opportunity is given to learn the nature and use of the principal instruments employed in the exact and practical measurement of physical quantities.

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9. GEOLOGY, MINERALOGY AND PETROGRAPHY.

(LOGAN PROFESSORSHIP OF GEOLOGY.)

Professor:—SIR J. WM. DAWSON, C.M.G., LL.D., F.R.S., F.G.S.

B. J. HARRINGTON, B.A., Ph.D., F.G.S., Professor of Mineralogy.

FRANK D. ADAMS, M. Ap. Sc., Ph. D., F. G.S. A. Lecturer on Petrography and Physical Geology.

Fourth Year (1)—MINERALOGY AND PETROGRAPHY.—An elementary course, in which attention is given more particularly to such minerals and rocks as are important in Geology or useful in the Arts.

(2) PHYSICAL GEOLOGY AND STRATIGRAPHY.—Denudation and Origin of Aqueous Deposits; Volcanoes and Earthquakes; Arrangement of Rocks on the large scale; Origin of Mountains; Field Geology and Construction of Geological Maps and Sections.

(3) CHRONOLOGICAL GEOLOGY AND PALÆONTOLOGY.—Classification of Formations; Geological Periods; Mineralization and Classification of Fossil Remains; History of the several Periods with the Fauna and Flora of each. Distribution, more especially in Canada.

Saturday excursions will be made to points of interest, and Museum demonstrations will be given.

TEXT-BOOKS.—Dawson's Handbook of Geology, Dana's Manual of Mineralogy. Books of reference will be indicated in the Library.

Students in Natural History are entitled to tickets of admission to the Museum of the Natural History Society of Montreal.

For Additional Departments see Honour Course, II., infra.

The Geology course is especially fitted to those students who have taken the Natural Science studies of the previous years, but others are not excluded.

10. ZOOLOGY AND PALÆONTOLOGY.

Professor:—Sir J. William Dawson, LL.D., F.R.S.

Demonstrator:—W. E. Deeks, B.A.

Third Year.—Zoology and Palæontology. Elements of Animal Physiology. Classification of Animals. Characters of the Classes and Orders of Animals with recent and fossil examples, taken as far as possible from Canadian species,—the whole with reference to the study of Canadian Animals recent and fossil. Demonstrations in the Museum. *Text-Book.*—Dawson's Handbook of Zoology, with books of reference.

A prize of $20 will be given for a collection of specimens of recent or fossil animals, accurately named. The Prize collections or duplicates of them to remain in the Museum if required. Candidates must be students of Zoology of the previous session, and the prize will not be awarded except for a collection of sufficient merit, and belonging to some one class of recent animals, or the fossils of one geological system or one definite locality.

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11. BOTANY.

Professor:—D. P. Penhallow, B. Sc.

Demonstrator:—C. McDerick, B.A.

Second Year.—This course is designed to give the students a thorough acquaintance with the principles of Morphology and Classification, the elements of Histology and the most prominent physiological functions of the plant. The Flora of Canada will be given prominence as far as possible, and in descriptive work constant use will be made of the large Herbarium and of the Botanic Garden. So far as time will permit, weekly excursions will be made for field study of plants.

Text-Books:—Gray's Structural Botany. Gray's Manual. Penhallow's Classification. Penhallow's Guide to the Collection of Plants.

For the coming year a prize of $25.00 will be offered by Mr. Alfred Joyce for the best collection of Canadian plants.

The specimens must be prepared in accordance with Penhallow's Guide to the Collection of Plants. Specimens collected by persons other than the actual competitors will not be admitted except when obtained by exchange. Competition is open to those students only who have taken the regular course of Botany in the previous session. Cutivated plants will not be taken into consideration.

All collections will be returned after the awards have been made.

Third Year.—Additional Course. *Vegetable Histology.*—Two lectures with practical work each week. Microscopical manipulations, micro-chemical reactions, general histology of Phanerogams. Microscopical Drawing.

Fourth Year.—Additional Course. *Vegetable Histology.*—Two lectures with practical work each week. A continuation of the Course in the third year embracing a study of the structure and life history of Cryptogams. No

student will be admitted to the course in the Fourth Year without having followed that for the Third Year.

TEXT-BOOKS.—Goebel's Outlines of Classification and Special Morphology.

Fee for Additional Course, $10 per session for use of instruments and reagents.

A prize will be awarded to the student showing the greatest proficiency in the work of the two years.

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12. CHEMISTRY.

(DAVID J. GREENSHIELDS PROFESSORSHIP OF CHEMISTRY AND MINERALOGY.)

Professor:—B. J. HARRINGTON, B.A., PH.D.

Sessional Lecturer:—NEVIL N. EVANS, B.A.Sc.

First Year.—A course of Lectures preparatory to the course in Natural Science. The Lectures are illustrated by experiments, and treat of the Elementary Constitution of matter, the Laws of Chemical Combination by weight and volume, the Atomic Theory, Quantivalence, Chemical Formulæ and Equations, Chemical Attraction, characteristics of Acids, Bases and Salts, Compound Radicals, the preparation and properties of the non-metallic and metallic Elements, and many of their compounds, etc. A few Lectures are usually devoted to the consideration of some of the more important Organic Substances, including Starch, Sugars, the Vegetable Acids and Alkaloids, Alcohol, etc. During the course, attention is called as far as possible to the relations of Chemistry to various manufacturing industries.

TEXT-BOOK.—Remsen's Introduction to the study of Chemistry.

Third Year.—ADDITIONAL DEPARTMENT (*The Chemistry of the Metals or Organic Chemistry*).—One Lecture a week. (*Practical Chemistry*)—Qualitative Analysis, as in Fresenius' Qualitative Chemical Analysis, two afternoons a week.

Fourth Year.—ADDITIONAL DEPARTMENT.—A course of Practical Chemistry, in continuation of that of the Third Year.

NOTE.—The chemical laboratories are capable of accommodating about forty Students, and afford excellent facilities for practical work. Students in Arts taking classes in Practical Chemistry pay a special fee of ten dollars for the session.

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13. METEOROLOGY.

Superintendent of Observatory:—C. H. MCLEOD, MA. E.

Instructions in Meteorological Observations will be given in the Observatory at hours to suit the convenience of the senior students.

Certificates will be granted to those students who pass a satisfactory examination on the construction and use of Meteorological Instruments and on the general facts of Meteorology.

14. PEDAGOGY.

Lectures on this subject will be given in the Normal School to undergraduates of the Third and Fourth Years who wish to obtain the Provincial Academy Diploma.

Lecture hours: 3 p.m., Tuesday and Friday.

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15. ELOCUTION.

Instructor:—J. P. STEPHEN.

Instruction is given in this subject at hours that will be settled at the beginning of the session. Special fee for session, $2.

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16. GYMNASTICS.

Instructor:—R. T. MACKENZIE, B.A., M.D.

The classes will meet at the University Gymnasium, at hours to be announced at the commencement of the Session. The Wicksteed silver and bronze medals (the gift of Dr. R. J. Wicksteed) are offered for competition to students of the Graduating Class and to students who have had instruction in the Gymnasium for two sessions,—the silver medal to the former, the bronze medal to the latter. (See Regulations appended.)

II. HONOUR COURSES.

1. CLASSICS.

THIRD YEAR.

Greek.

1. *Greek Authors*:—Plato, Apology, Crito, Laches and Euthyphro; Demosthenes, Olynthiacs; Herodotus, Bk. VII.; Thucydides, Bk. VI. Euripides, Medea; The Authors to be read in class will be selected at the beginning of the session.
2. *Translation at sight* from the works of Xenophon and Homer, and *Greek Prose Composition.*
3. *History* of *Greece* (Selections from Grote); Mahaffy's *History of Greek Literature* (Selections).
4. *General Paper* on Grammar, Antiquities, Mythology and Philology.

Latin.

1. *Latin Authors*:—Cicero, Select Letters, and De Officiis, Bk. III.; Sallust, Catiline; Catullus, Selections; Horace, Epistles, Bk. I.; Tibullus and Propertius (Selections) Livy, Bks. XXI.-XXV.

2. *Sight Translation* from Caesar, Nepos, Virgil, Ovid and Livy, and *Latin Prose Composition.*
3. *History of Rome* (Selected portions of Mommsen); Teuffel's or Cruttwell's *History of Roman Literature* (Golden Age of Roman Literature).
4. *Grammar*; *Mythology* and *Antiquities.* A paper testing the candidate's general knowledge of classical philology will be given. The following works are recommended for this purpose:
Gow's Companion to School Classics (2nd Edition).
Murray's Manual of Mythology. Giles, A short Manual of Philology for Classical Students. Madvig's Latin Grammar (rev. by Thacher). Guhl and Kohner's Life of the Greeks and Romans.

FOURTH YEAR.

Part I. (1) *Greek Authors*:—Æschylus, Prometheus Vinctus; Sophocles, Antigone; Euripides, Medea; Herodotus, Bk. IX.; Xenophon, Hellenics Bks. I. and II.; Æschines, Contra Ctesiphontem. (2) Latin *Authors*:—Horace, Epistles, Bk. I.; Juvenal, Satires VIII. and XIII.; Persius, Satires V. and VI.; Livy, Bk. XXI.; Tacitus, Annals, Bk. II.; Cicero De Officiis. (3) *Greek and Latin Prose Comporition*:—As in Arnold's Greek Prose and Smith's Principia Latina, Part V. *Part II.*—(1) *Greek*:—Plato, Republic, Books I. and II.; Aristotle, The Poetics; Thucydides, Books VI. and VII.; Hesiod, Works and Days; Æschylus Seven against Thebes; Aristophanes, The Frogs; Pindar, Olympic Odes; Theocritus, Idylls I. to VI.; Demosthenes, De Corona. (2) *Latin*:—Livy, Books XXII. and XXIII.; Tacitus, Annals, Book I.; Tacitus, Histories, Book. I.; Virgil, Æneid, Books I. to IV.; Plautus, Aulularia; Terence, Adelphi; Juvenal, Sat. X.; Cicero, De Imperio Cn. Pompeii. (3) *History of Greece and Rome*:—*Text-Books.*—1. Grote's History of Greece. 2. Arnold's History of Rome, 3. Mommsen's History of Rome. 4. Mahaffy's History of Greek Literature, 5. Cruttwell's History of Roman Literature. 6. Cruttwell and Banton's Specimens of Roman Literature. 7. Haigh's Attic Theatre. (4) *Composition*:—Composition in Greek and Latin Prose. (5) General Paper on Grammar, History and Antiquities.

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2. MENTAL AND MORAL PHILOSOPHY.

THIRD YEAR.

Part I.—Schwegler's History of Philosophy, Chapters 1-21 inclusive; Mill's System of Logic, Books IV. and V.; James' Principles of Psychology, Chapters 10-16 inclusive; selected portions from Thomson's Outline of the Laws of Thought, from Jevons' Principles of Science, and from Venn's Empirical Logic. Any two of these subjects, along with the Honour Lectures, may be taken as the Additional Course.

Part II.—Plato's Theaetetus (by S. W. Dyde); Fraser's Selections from Berkeley.

FOURTH YEAR.

Part I.—Erdmann's History of Philosophy, Vol. II. (Engl. Transl.); James Principles of Psychology, Vol. II; Spencer's First Principles; Green's Prolegomena to Ethics; Mill's System of Logic, Book VI. Any two of these subjects along with the Honour Lectures may be taken as the Additional Course.

Part II.—Aristotle's Nicomachean Ethics; Zeller's Stoics, Epicureans and Sceptics; Spinoza's Ethics; Watson's Selections from Kant; Maine's Ancient Law.

N.B.—The class essays of Candidates for Honours are expected to display superior ability in the discussion of philosophical subjects.

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3. ENGLISH LANGUAGE, LITERATURE AND HISTORY.

THIRD YEAR.

Part I.—Early English; Morris and Skeat, Part II., Extt. I-IX. inclusive; Spencer—Faerie Queene, Bk. I.; Milton—Comus; Burke—Reflections on the French Revolution; Hallam—Middle Ages, chaps. 1, 3, 5. (The above mentioned portion of the Honour work constitutes the Additional Course of the Third Year.) Sweet's Anglo-Saxon Reader; Extt. IV., VIII. and XXI.; Dryden—Annus Mirabilis; Absolom and Achitophel, Part I.; the Preface to the "Fables;" Macaulay—Essays on Clive, Ranke's History of the Popes, and Warren Hastings.

Part II.—Sweet's Anglo-Saxon Reader; the pieces in verse; Chaucer—Assembly of Foules (ed. Lounsbury); Sidney—An Apologie for Poetry (ed. Arber, to be obtained by post from the editor, 1 Montague Road, Edgbaston, Birmingham, price 6d.); Milton—Shorter English Poems; Areopagitica (ed. Hales); Addison—Essays on Paradise Lost and on the Imagination (Spectator); Wordsworth—Prelude (Moxon's edition); Leslie Stephen—English Thought in the Eighteenth Century, Vol. II., chap. X., sections V-X. inclusive; Macaulay, Vol. I., chap. I.; Green, History of the English People—(Reigns of Eliz. and Chas. II.).

FOURTH YEAR.

Part I.—Sweet's Anglo-Saxon Reader, Extt. II., XIII., XX.; Pope—Essay on Criticism, Essay on Man; Shelley—Adonais; Tennyson—In Memoriam; Buckle—History of Civ. in England, 4 chaps. (The above-mentioned portion of the Honour work constitutes the Additional Course of the Fourth Year.) Early English; Morris and Skeat, Part II. Extt. X-XX inclusive; Shakspeare—Love's Labour Lost—A Midsummer Night's Dream—Hamlet; Matthew Arnold—Essays in Criticism (the second).

Part II.—Portion of Beowulf (ed. Harrison and Sharp); Sweet's Second Anglo-Saxon Reader; Vespasian Hymns; Sir Thomas More—Utopia (ed.

Arber); Villiers—Rehearsal (ed. Arber); Campbell—Pleasures of Hope; Tennyson—Coming of Arthur, Gareth and Lynette, Holy Grail, Passing of Arthur; Gibbon—Decline and Fall, and chaps. L., LI., LXIV., LXV.; Guizot—History of Civilization in Europe; Macaulay—Vol. I., chap. 3; Freeman—Growth of the English Constitution.

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4. MATHEMATICS AND PHYSICS.

First and Second Years.—MATHEMATICS.—Hall and Stevens' Euclid; McDowell's Exercises in Modern Geometry; Hall and Knight's Advanced Algebra; Todhunter's or Burnside and Panton's Theory of Equations (selected course); Lock's Higher Trigonometry, with McClelland and Preston's Spherical Trigonometry, Part I.; Salmon's Conic Sections, chapters 1, 2 3, 5, 6, 7, and 10 to 13 inclusive; Williamson's Differential and Integral Calculus (selected course).

Third Year.—MATHEMATICAL PHYSICS.—Part I.—Minchin's Statics, Vol. I, selected chapters. Williamson and Tarleton's Dynamics, Chaps. 1 to 8 inclusive. Part II.—Remainder of Minchin's Statics, Vol. I., Besant s Hydro-mechanics, Part I., chaps. 1, 2, 3, 7; Godfray's Astronomy; Parkinson's Optics.

B. A. HONOUR COURSE.

art I.—MATHEMATICAL PHYSICS.—Honour Course of the Third Year (the whole) PURE MATHEMATICS.—Williamson's Differential and Integral Calculus; Salmon's Geometry of Three Dimensions (selected course).

Part II.—PURE MATHEMATICS.—Boole's or Forsyth's Differential Equations (selected course). MECHANICS.—Minchin's Statics, Vol. II., except chapters 14 and 18. Williamson's and Tarleton's Dynamics (the whole, including the Dynamics both of Rigid Bodies and of a particle). Routh's Dynamics of a Rigid Body, (for reference). Besant's Hydro-mechanics.

PHYSICAL ASTRONOMY.—Godfray's Lunar Theory, or Cheyne's Planetary Theory; Newton's Principia, Lib. I., Sects. 1, 2, 3, 9 and 11.

LIGHT.—Preston's Theory of Light.

ELECTRICITY AND MAGNETISM.—Ordinary Course, with Cumming's Theory of Electricity and Maxwell's Elementary Electricity, or Emtage's Electricity and Magnetism.

HEAT
ACOUSTICS } As in ordinary course.

The above course in each year, and the lecture hours assigned to it in the time table, are subject to alterations or omissions, which will be made definitely known to Candidates for Honours at the beginning of the session.

COURSE FOR THE ANNE MOLSON MATHEMATICAL PRIZE.

(1) The Mathematical Physics of the Honour Course of the Third Year.
(2) Salmon's Geometry of Three Dimensions (selected course).
(3) Williamson's Differential and Integral Calculus (selected Course).

5. GEOLOGY AND NATURAL HISTORY.

THIRD YEAR.

Part I.—Mineralogy.—Crystallography. Physical properties of minerals dependent upon light, electricity, state of aggregation, etc. Chemical composition. Principles of classification. Description of species important as constituents of rocks. (One lecture weekly during the First Term, and two during the Second)

Part II.—Blowpipe Analysis and Determinative Mineralogy.—(One afternoon weekly in the Laboratory during the session. *Text-Book.*—Brush's Determinative Mineralogy and Blowpipe.)

Instructions will be given to the class for study and collection in the vacation.

B. A. HONOUR COURSE.

Part I.—(1) *Mineralogy.*—Description of mineral species, particular attention being called to the Economic Minerals of Canada. Calculations of Mineralogical Formulæ, Quantivalent Ratios, etc. (Two lectures weekly in the First Term.)

(2) *Plæontology.*- Being an extension of that in the third year, with special studies of the more important groups of Fossils. One lecture and one demonstration weekly in the First Term.)

Part II.—(3) *Petrography.*—Essential and accessory constituents of Rock. Microscopic and macroscopic characters. Preparations of Rock-sections. Microscopic examination of Minerals and Rocks. Principles of classification. Description and determination of Rocks. (One lecture weekly in the Secon Term, with additional practical work or demonstrations.

(4) *Canadian Geology.*—Special studies of the Geology of the Dominion of Canada. (One lecture weekly in the Second Term.)

(5) *Practical and Applied Geology.*—Including methods of observing and recording geological facts, and searching for mineral deposits—Geology as applied to the Arts. (One lecture weekly in the Second Term) with additional practical work or demonstrations.

During the second term, four hours a week will be devoted to practical work and demonstrations, which will include each week a colloquium on some Geological question.

TEXT-BOOKS.—Dana, Geikie, Dawson, Nicholson, Survey Reports, etc.

Candidates for Honours will be expected to attain such proficiency as to be able to undertake original investigations in some at least of the subjects of study.

Students in the Faculty of Applied Science may be Candidates for Honours.

ADDITIONAL DEPARTMENT.

Third Year.—Mineralogy as in Part I. above.

Fourth Year.—Palæontology and Practical Geology as in Parts I. and II. above. Or the student may take the Lectures in Mineralogy instead of Palæontology, or those in Petrography or Canadian Geology instead of Practical Geology.

6. MODERN LANGUAGES.

(French and German, both of which must be taken.)

THIRD YEAR.

Part I.—FRENCH.—La Fontaine :—Les Fables. Racine :—Les Plaideurs. Paul Albert :—Littérature de XVIIe siècle. Translation into French.—Goldsmith :—The Vicar of Wakefield. Corneille :—Horace.

GERMAN.—Heine—Die Harzreise, Schiller—Wilhelm Tell ; Macmillans German Composition. (Either of the above may be taken as the Additional Course in the language to which it belongs. See § III.)

The Ordinary Course in French and German must also be taken. See § III.

Part II.—FRENCH.—Racine :—Phèdre, Les Plaideurs. Boileau : - L'Art Poétique. Pascal :—Les Pensées. Clédat.—Graumatre Elémentaire de la vieille langue Française.

GERMAN.—Lessing—Laokoon ; A special study of Goethe's Faust (Part I) History of German Literature in the 16th, 17th and 18th centuries (Gostwick and Harrison).

FOURTH YEAR.

Part I.—French.—Clédat, Grammaire Elémentaire de la vieille langue Française. Paul Albert :—La Littérature Française dès les origines à la fin du XVIe siècle. Emile Souvestre :—Un Philosophe sous les toits. Translation into French :—As You like it.

GERMAN.—Lessing—Nathan der Weise ; Schiller—Maria Suart ; Behaghel's Deutsche Sprache ; Wieland—Die Abderiten ; Macmillan's German Prose. Composition.

(Either of the above may be taken as the Additional Course in the language to which it belongs.)

The Ordinary Courses in French and German must also be taken.

Part II.—FRENCH.—Molière :—Le Misanthrope. Victor Hugo :—Hermani. La-Rochefoucauld :—Les Maximes. Montaigne :—Les Essais (Extraits par Eug Voizard). Clédat, Grammaire Elémentaire do la vieille langue Française. Constans :—Chrestomathie des anciens textes Français.

GERMAN.—Goethe—Hermann und Dorothea ; Schiller—Die Jungfrau von Orleaus ; Selections from Heine's Lyrical Poems ; Paul—Middle High German Grammar ; Zarncke—Das Nibelungenlied ; History of German Literature in the 13th, 14th and 15th centuries.

For First and Second Rank Honours the successful Candidates must be capable of speaking and writing both languages.

7. SEMITIC LANGUAGES.

THIRD YEAR.

Part I.—Hebrew.—Genesis, Isaiah, 40-66. Ecclesiastes.—*Literature.* F. Lenormant: The beginning of History.

Part II.—Aramaic.—Daniel, Ezra. Selections from the Targums. *Literature.*—Sayce: Lectures on the Origin and Growth of Religion.

FOURTH YEAR.

Part I.—Hebrew.—Malachi, Psalms, 1-72. Job, 26-42. *Literature.*—Renan: A general History of the Semitic Languages.

Part II.—Syriac.—Selections from the Peshito, and from the Chronicles of Bar Hebræus.—*Literature.*—W. Wright: Comparative Grammar of the Semitic Languages.

ADDITIONAL COURSE.

Part II. of each year (Literature excepted), along with the Honour Lectures.

LECTURES IN THE UNDERGRADUATE COURSE IN THE FACULTY OF ARTS.

SESSION OF 1893–94.

	Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
FIRST YEAR.	9	Latin.	† Mathematics. (*b*)	Mathematics.	† Mathematics. (*b*)	Mathematics.
	10	Mathematics.	Greek.	Latin.	Latin.	Greek.
	11	English.	* French.	* French. *German.	* French.* German.	English.
	12	Elementary Chemistry.	* German. * Hebrew.	English.	* Hebrew.	Elementary Chemistry.
SECOND YEAR.	9	* French.	Logic.	* French.	* Hebrew.	French.
	10	Greek.	* Hebrew.	Logic.	Logic.	German. † Mathematics.
	11	Mathematics.	Latin.	† Mathematics. Botany.	Latin.	Greek.
	12	† Mathematics. Botany.	* German (*c*). Math. Phy.	English (*b*). Latin (*a*.)	* German (*c*.)	English.
THIRD YEAR.	9	English Literature.	Greek. Geol. † (*b*)	† Greek. † Math. Phy.	Greek.	† Greek. † English. † Geol.
		† Geology. (*b*)		† Anglo-Saxon.		German. † Math. Phys.
	10	German. †Math. Physics.	French. † Ment. Phil.	Physics (Mathematical).	French. Chemistry.	Rhetoric.
		† Mental Philosophy.	† Latin.		Hebrew.	* Syriac, etc.
	11	Mental Philosophy.	Zoology.	Mental Philosophy.	Zoology.	Math. Physics.
		† Latin				
	12		Experimental Physics.	Latin.	Experimental Physics.	Latin.
	1		Hebrew.		Hebrew.	
FOURTH YEAR.	9	Exp. Physics.	Astronomy. (*a*)	† Greek. Geology. †Math. Phy.	Exp. Physics.	† Greek. † Math. Physics.
	10	Geology.	French. † Ment. Phil.		† Mental Philosophy.	Geology.
					German. History.	
	11	Latin. † Geology.	Moral Phil. † Math. Phys.	Greek.	Moral Philosophy.	French. † Geology. Anglo-Saxon and Early English.
			† Chaldee.		† Chaldee.	
	12	Moral Phil.		† Geology. Hebrew.	Astronomy. (*a*)	German.
	1				Hebrew.	

(*a*) During First Term. (*b*) Second Term. (*c*) For beginners entering 2nd Year. † For Candidates for Honours.
* The Student may take at his option French or German in the first two years, or, if a Theological Student, Hebrew.
Classes at 1 p.m. may be changed to other hours.
Library open every day, 9 to 4. The Museum will be opened as arranged by the Principal.
Determinative Mineralogy, Wednesday, at 2 p.m. Practical Chemistry, Monday and Thursday, at 2 p.m., for 3d and 4th Years; First Year with the Class in Applied Science.

Special Course for Women.

IN THE FACULTY OF ARTS.

DONALDA ENDOWMENT.

Professors and Lecturers (as on page 1). Lady Superintendent, Miss HELEN GAIRDNER.

The classes for women under this endowment are wholly separate, except those for Candidates for Honours (including most of the additional courses in the Third and Fourth Years). The examinations are identical with those for men. Women will have the same privileges with reference to Classing, Honours, Prizes and Medals as men.

Regulations for Examinations, Exemptions, Boarding-Houses, Attendance, Conduct, Library and Museum are the same as for men. Undergraduates wear the Academic Dress; others do not.

The *Jane Redpath Exhibition* is open for competition, at the beginning of the First or Second Year, to both men and women.

Two other Exhibitions (one of the value of $100, along with free tuition, the other $120 without free tuition) are open for competition in the First or Second Year to Students of the Donalda Department only. For course see § II. *ante*. Candidates for these Exhibitions are allowed, according to the general rule of the Donalda Department, to substitute a Modern language for Greek in the examination. In this case while the regulation concerning one modern language will for Entrance only be as in § II *ante*, the course in that which is to be substituted for Greek in the Exhibition Examination will be :—

For First Year :—

French :—Grammar—Darey's Principes de Grammaire Française—Grammar. La Fontaine's Fables. Molière—Le Bourgeois Gentilhomme. Sardou—Mlle de la Seiglière. Translation from English into French.

or *German* :—Vandersmissen and Fraser's German Grammar; Adler's Reader—First and Second sections; Schiller—Der Gang nach dem Eisenhammer, Das Lied von der Glocke; Translation from English into German.

N.B.—For examination in 1894 add Stifter's Haidedorf.

For Second Year :—

French:—Eugène Voizard, Essais de Montaigne. Lamartine, Jeanne d'Arc. CORNEILLE, Cinna.

or *German*:—

Schiller—Der Neffe als Onkel, Egmont's Leben und Tod, Die Kraniche des Ibykus (Buchheim); Grammar; Translation of French and English into German.

N.B.—For examination in 1895 add Schiller'rs Geisterseher.

One free tuition may be awarded to a Candidate who approaches very near to the winner of either of the Exhibitions.

The income of the *Hannah Willard Lyman Memorial Fund* will be given in prizes.

I. MATRICULATION AND ADMISSION.

Classics.—I. *Latin.*—Caesar, Bell. Gall., Book I.; and Virgil, Aeneid, Book I, Latin Grammar. [In 1894, and afterwards, two books of Caesar, will be required.]

Greek.—Xenophon, Anabasis, Book I.; Greek Grammar.

Candidates who cannot pass in Greek may substitute an additional modern language, subject to the same regulations throughout the course of four years. In and after 1895, there will be an entrance examination in German for such candidates.

Mathematics.—Arithmetic including a knowledge of the Metric System; Algebra to Quadratic Equations (inclusive) as in Colenso; Euclid, Books, I., II., III.

English.—Writing from Dictation. A paper on English Grammar, *including Analysis.* A paper on the leading events of English History. Essay on a subject to be given at the time of the Examinations.

French.—Grammar up to the beginning of Syntax. An easy translation from French into English. Candidates taking Greek and unable to take French are not excluded, but will be required to study German after entrance. This regulation holds good only until 1895.

An equivalent amount of other books or other authors in Latin and Greek than those named may be accepted by the Examiners, on application made through the Professor of Classics.

(Associates in Arts, who, at their special Examination, have passed in Latin, Algebra and Geometry, are not required to present themselves for the Matriculation Examination in these subjects.)

PARTIAL STUDENTS—Candidates unable to pass in all the above subjects may be admitted as Partial Students, in the separate classes; if prepared to enter in three of the subjects of the ordinary course of study, they may in the First Year make good their standing as Undergraduates at the Christmas or Sessional Examinations.

II. ORDINARY COURSE OF STUDY FOR THE DEGREE OF B.A.

In separate Classes.

First Year.—Classics; French or German; English Grammar and Literature; Pure Mathematics; Elementary Chemistry.

Second Year.—Classics; French or German; English Literature; Elementary Psychology and Logic; Pure Mathematics and Mathematical Physics; Botany.

Third Year.—Latin or Greek; Mathematical Physics (Mechanics and Hydrostatics); with any three subjects out of the two following divisions, at the option of the Student, provided two be selected from one division and one from the other:—

I. Literature, etc.—(*a*) Greek or Latin, according as Latin or Greek has been previously chosen. (*b*) French or German (whichever has been taken in the first two years). (*c*) English and Rhetoric. (*d*) Mental Philosophy.

II. Science.—(*e*) Optics and Descriptive Astronomy. (*f*) † Experimental Physics. (*g*) Natural Science (Zoology).

Fourth Year.—Latin or Greek, same Language as in Third Year; Mathematical Physics (as in Third Year), or Astronomy and Optics; Moral Philosophy with any three subjects out of the two following divisions, at the option of the Student, provided two be selected out of the one division, and one out of the other.

I. Literature, etc.—(*a*) Greek or Latin, according as Latin or Greek has been taken above. (*b*) French or German, same language as in Third Year. (*c*) History.

II. Science.—(*d*) Astronomy and Optics, if not chosen as above. (*e*) † Experimental Physics. (*f*) Natural Science (Geology).

† Undergraduates claiming exemptions (see § V.) cannot take Astronomy and Optics or Experimental Physics if they have not taken the Third Year Mathematical Physics.

Instead of two distinct subjects in one of the above divisions, the student in either Third or Fourth Year may select one subject only, together with an additional course in the same, or any other of these subjects under the above rules (if arrangements be made by the Faculty for it), provided she has been placed in the first class in the corresponding subject at the preceding Sessional Examination (viz., Intermediate or Third Year, according to standing).

The additional course is intended to be more than an equivalent, in the amount of work involved, for any of the other subjects in the Division.

Additional courses are provided at present in Botany and Practical Chemis-

Gymnastics.—A class will be conducted by Miss Barnjum, which will be optional and open to Partial Students.

Elocution.—Instruction in this subject will be given to those who desire it, by Mr. J. P. Stephen. Special fee for session, $2.

HONOUR COURSES AND ADDITIONAL COURSES.

(*In Mixed Classes.*)

Undergraduates desirous to take one of the Honour Courses in Classics Mathematics, Mathematical Physics, Mental and Moral Philosophy, English Language and Literature, History, Geology and other Natural Sciences, Modern Languages, or such portions of the Honour Courses as constitute the "Additional Courses," may in the Third and Fourth Years obtain exemptions to the same extent as those given to men, but must take the same lectures with men.

Details will be found in Section XII. of the Calendar.

III. DEGREES.

Students are admissible to the degrees of B.A., M.A., and LL.D., conferred in the usual way, on the usual conditions; and will be entitled to all the privileges of these degrees, except that of being elected as Fellows.

IV. FEES.

The fees are the same as for men (see Section XI., *ante*.).

The fees are to be paid to the Registrar of the University, from whom tickets for the Library and copies of the Library Rules may be obtained.

Exemptions from fees may be allowed to the highest pupil of the Girls' High School of Montreal and of other Schools, on the same terms as to men.

One exemption from tuition fees is annually allowed to the pupil (boy or girl) of the Montreal High School holding an exemption from the Schools of the Protestant Commissioners, Montreal, who has taken the highest marks at the A. A. Examinations and is recommended by the Commissioners.

V. LODGINGS, &c.

Women not resident in Montreal, proposing to attend the classes, and desiring to have information as to suitable lodgings, are requested to intimate their wishes in this respect to the Registrar of the University, at least two weeks before the opening of the session.

Students desiring information as to the above or other matters are referred to the Lady Superintendent, who will be found in her office in the rooms of the Donalda Department, every day during the session, except Saturday.

LECTURES OPEN TO PARTIAL STUDENTS, SESSION, 1893-94.

CHEMISTRY:—*Dr. Harrington.* Tuesday and Thursday at 12.

BOTANY:—*Prof. Penhallow.* Monday at 11, Wednesday at 12.

ZOOLOGY:—*Mr. Deeks.* Tuesday and Thursday at 12.

GEOLOGY:—*Dr. Adams.* Monday and Friday at 12. Wednesday at 10 a.m.

EXPERIMENTAL PHYSICS:—*Professor Cox.* Tuesday and Thursday, at 10 a.m. and 11 a.m.

PSYCHOLOGY AND LOGIC:—*Rev. Dr. Murray and Mr. Lafleur.* Tuesday and Friday at 4 p.m., and Monday at 3 p.m.

MENTAL PHILOSOPHY:—*Rev. Dr. Murray and Mr. Lafleur.* Monday at 4 p.m. and Wednesday at 3 p.m.

MORAL PHILOSOPHY:—*Rev. Dr. Murray.* Tuesday and Wednesday at 12, and Friday at 11 a. m.

RHETORIC:—*Mr. Lafleur.* Tuesday at 11 a.m.

ENGLISH:—*Prof. Moyse.* Language and Literature, Tuesday, Wednesday and Friday at 4 p.m. Poets on the 19th Century, Wednesday, 3 p.m. Shakspeare, every alternate Friday at 3 p.m. Chaucer. Monday at 10 a.m.

HISTORY:—*Prof. Moyse.* Thursday at 9 a.m.

LATIN AND GREEK*:—*Rev. Dr. Cornish and Dr. Eaton.*

FRENCH*:—*Dr. Darey.*

GERMAN:—*Mr. Gregor.*

MATHEMATICS AND MATHEMATICAL PHYSICS*:—*Dr. Johnson and Mr. Tory.*

Those Courses in which two lectures weekly are delivered will each amount to about 45 lectures, and the others in proportion.

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* The lectures on these subjects extend over all the Years of the Course, and the hours will depend on the standing of Students with respect to previous preparation as ascertained by examination.

FACULTY OF ARTS.

*Ordinary Lectures in the Donalda Special Course for Women.

Years	Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
First Year.	9	† Mathematics (*b*)				
	11		German.	† Mathematics (*b*)	Greek.	
	12		Chemistry.		Chemistry.	
	2	Mathematics	French.	Mathematics.	French.	Mathematics.
	3	Latin.	English.	Latin.	German.	Latin.
	4	Greek.		English.		English.
Second Year.	10	Mathematics.	† Math. Phy.		Greek.	Latin.
	11	Botany.	Mathe matics.	Latin.	† Mathematics.	
	12	Greek.	Latin.	Botany.		
	2					
	3	Logic.	French.	English.	French.	English.
	4	German.	Logic.		German.	Logic.
Third Year.	10	English.	Greek.		Greek.	French.
	11	French.	Rhetoric Exp. Physics.		Exp. Physics.	Latin.
	12	Latin.	Zoology.	Math. Physics.	Zoology.	Math. Physics
	3	German.		Metaphysics.	German.	
	4	Metaphysics.				
Fourth Year.		Astronomy (*a*)			History.	
	10	French	Exp. Physics.	Geology.	Exp. Physics.	French.
	11	German.	Latin.	Astronomy (*a*).	Greek.	Moral Phil.
	12	Geology.	Moral Phil.	Moral Phil.		Geology.
	2					German.

The hours for Practical Chemistry and Additional Botany will be arranged at the beginning of the Session.

† For Candidates for Honours.

* For Honour Lectures in 3rd and 4th years see previous table.

(*a*) During First Term.

(*b*) During Second Term.

Faculty of Applied Science.

THE PRINCIPAL (*ex officio*).

Professors :—HARRINGTON.
BOVEY.
MCLEOD.
CHANDLER.
CARUS-WILSON
NICOLSON.

Associate Professors :—DAREY.
MOYSE.
PENHALLOW.
COX.
ADAMS.

Lecturers:—CARLYLE, EVANS, LEA.
Associate Lecturers :—LAFLEUR, ADAMS, GREGOR.
Dean of the Faculty :—HENRY T. BOVEY, LL.D., M. Inst. C.E., F.R.S.C.

§ I. GENERAL STATEMENT.

The Instruction in this Faculty is designed to afford a complete preliminary training of a practical as well as theoretical nature, to such Students as are preparing to enter any of the various branches of the professions of Engineering and Surveying, or are destined to be engaged in Assaying, Practical Chemistry, and the higher forms of Manufacturing Art.

Five distinct Departments of study are established, viz.:—

(1)—Civil Engineering and Surveying. (2)—Electrical Engineering. (3)—Mechanical Engineering. (4)—Mining Engineering. (5)—Practical Chemistry.

Each of these extends over four years, and is specially adapted to the prospective pursuits of the Student The subjects of instruction in the several Departments are given in the Table on the following page.

The Degrees conferred by the University upon such undergraduates of this Faculty as shall fulfill the conditions and pass the Examinations hereinafter stated will be, in the first instance. "Bachelor of Applied Science," mention being made in the Diploma of the particular Department of study pursued; and, subsequently, the degree of "Master of Engineering" or of "Master of Applied Science." § IV.)

§ II. TABLE SHOWING THE SUBJECTS OF INSTRUCTION, AND HOURS PER WEEK DEVOTED TO EACH SUBJECT.

	SUBJECTS.	Description under	Civil Engineering.	Electrical Engineering.	Mechanical Engineering.	Mining Engineering.	Practical Chemistry.
FIRST YEAR.	Chemistry	§ XI., 8	5 to 8	5 to 8	5 to 8	5 to 8	5 to 8
	English	" 14	3	3	3	3	3
	French or German	" 15	3	3	3	3	3
	Mathematics	" 13	10	10	10	10	10
	Freehand Drawing	" 4	3	3	3	3	3
	Geometrical Drawing	" 3	3 to 6	3 to 6	3 to 6	3 to 6	3 to 6
	Shopwork	§ XIV.	7	7	7	7	7
SECOND YEAR.	Botany	§ XI., 11	—	—	—	—	2
	Chemistry	" 8	—	—	—	7	14
	English	" 14	1	1	1	1	1
	French or German	" 15	2	2	2	2	2
	Mathematics	" 13	6	6	6	6	—
	Mechanism	" 6	—	2	2	—	—
	Physics	" 12	2	2	2	2	2
	Surveying	" 2	3	—	—	3	—
	Zoology*	" 10	3	—	—	3	—
	Drawing	" 3	8	8	6	6	—
	Physical Laboratory	§ XII., 3	6	6	6	3	5
	Shopwork	XIV	3	6	6	3	—
THIRD YEAR.	Chemistry	§ XI., 8	—	—	—	6	16
	Determinative Mineralogy	" 8	—	—	—	3	3
	Electrical Engine ring	" 5	—	2 (b)	—	—	—
	Geology and Mineralogy * *	" 10	3	—	—	4 to 5	4 to 25
	German	" 15	—	—	—	—	
	Kinematics and Dynamics of Machinery	" 6	—	2	2	—	—
	Mathematics	" 13	3	3	3	3	—
	Mechanism	" 6	2	—	—	2	—
	Mining	" 7	—	—	—	3	—
	Physics	" 12	2	2	2	2	2
	Surveying	" 2	3	—	—	3	—
	Theory of Structures	" 1	4	3 (a)	3	3	—
	Zoology *	" 10	—	—	—	—	3
	Drawing	" 3	9	6	6	3	—
	Electrical Laboratory	XII. 6	—	6 (b)	—	—	—
	Physical Laboratory	" 3	3	8 to 10	3	3	3
	Testing Laboratory	" 4	6	3	3	—	—
	Thermodynamic Laboratory	" 5	—	3	6	—	—
	Shopwork	§ XIV.	—	6	6	—	
FOURTH YEAR.	Assaying	§ XI, 18	—	—	—	9	—
	Chemistry	" 8	—	—	—	—	24
	Dynamics of Machinery	" 6	—	1	1	—	—
	Electrical Engineering	" 5	—	2	—	—	—
	Geodesy	" 2	2	—	—	—	—
	Geology and Mineralogy * *	" 10	—	—	—	3	3
	Hydraulics	" 1	2	—	2	2	—
	Machine Design	" 6	—	1	1	—	—
	Mathematics	" 13	3	3	3	2	—
	Metallurgy	" 7	—	—	—	2	2
	Theory of Structures	" 1	4	—	—	—	—
	Thermodynamics	" 9	1	1	1	1	—
	Drawing (Designing)	" 3	6	3	9	3	—
	Electrical Laboratory	§ XII., 6	—	12	—	—	—
	Geodetic Laboratory	" 7	3	—	—	—	—
	Hydraulics Laboratory	" 8	3	—	3	3 (a)	—
	Mechanical Laboratory	" 9	—	—	7	—	—
	Museum Work		—	—	—	6	—
	Physical Laboratory	" 3	Opt.	10	Opt.	Opt.	Oct.
	Testing Laboratory	" 4	3	—	—	—	—
	Thermodynamic Laboratory	" 5	3	—	7	—	—
	Shopwork	§ XIV.	3	4	4	—	—

(a) First term. (b) Second Term. * Besides study in the Museum.
** Also Saturday excursions, and Museum and Petrographical work.

§ III. MATRICULATION AND ADMISSION.

All Students are recommended to take the First and Second Years of the Arts Course. They are then admitted into the Faculty of Applied Science without examination.

Students and Graduates in Arts will be admitted to such standing in the Faculty of Applied Science as their previous studies will warrant, but are recommended to take the drawing and shop-work during their Arts Course.

Candidates for examination must present themselves on the first day of examinations, and all Students must attend punctually at 9 a.m. on Wednesday, September 20th, when the lectures will begin.

Examinations for entrance will be held (1) on June 1st and following days in McGill College and at local centres, and (2) on Friday, September 15th, and following days in McGill College only.

Any Head Master or other person desiring a local examination in June must, before May 10th, submit the name of some suitable person, preferably a University graduate, who is willing to act as Deputy Examiner, *i.e.*, receive the questions, hold the examinations, and forward the answers to Montreal. Further particulars relating to this examination will be given on application to the Secretary of the University.

SUBJECTS OF EXAMINATION.

MATHEMATICS.—*Arithmetic*—All the ordinary rules, including square root, and a knowledge of the Metric System.

Algebra—Elementary rules, involution, evolution, fractions, indices, surds, simple and quadratic equations of one or more unknown quantities.

Geometry—Euclid, Bks. I., II., III., with easy deductions. Also, in 1894 and subsequently, Bks. IV. and VI., with definitions of Bk. V.

Trigonometry—As in Hamblin Smith, pp. 1-100, omitting Ch. XI.

ENGLISH—*Dictation*. *Grammar* including analysis. Also, in 1894 and subsequently, the leading events of English History.

After entrance, one modern language, viz., FRENCH or GERMAN, must be studied. In the former subject an entrance examination (to the beginning of Syntax, with easy translation) will be held at the same time as the other examinations. The German may be taken without previous examination.

Candidates who produce certificates of having already completed a portion of a course in some recognized School of Applied Science may be admitted to an equivalent standing.

PARTIAL STUDENTS.—Students may be allowed to take one or more courses of instruction, upon showing by examination or otherwise that they are qualified to do so.

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§ IV. EXAMINATIONS.

I. FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.

1. FACULTY EXAMINATIONS.

There will be a Christmas examination for Students of the First Year in all the subjects, and for Students of the Second, Third and Fourth Years in Mathematics, and in those subjects which they take in the Faculty of Arts. A sessional examination in all the subjects will be held at the end of the First and Second Years.

2. UNIVERSITY EXAMINATIONS.

(*a*) There will be a primary examination at the end of the Third Year in all the subjects of that year. Candidates must pass this Examination before entering the Final Year.

(*b*) There will be a final examination for the degree of Bachelor of Applied Science at the end of the Fourth Year, in all the subjects of that year.

Successful Students will be arranged in order of merit.

II. FOR THE DEGREE OF MASTER OF ENGINEERING.

Candidates must be Bachelors of Applied Science of at least three years standing, and must produce satisfactory certificates of having been engaged during that time upon *bona fide* work in either the Civil, Electrical, Mechanical, or Mining Branch of Engineering.

They must pass with credit an examination extending over the

general theory and practice of Engineering, in which papers will be set having special reference to that particular branch upon which they have been engaged during the three preceding years.

Candidates must present applications for examinations, together with the necessary certificates and fees. The Faculty will notify the candidates whether their certificates are satisfactory, and also of the date of the examination. (See also § V.)

III. FOR THE DEGREE OF MASTER OF APPLIED SCIENCE.

Candidates must be Bachelors of Applied Science of at least three years standing, must present certificates of having been employed during that time in some branch of scientific work, and must pass with credit an examination on the theory and practice of those branches of scientific work in which they may have been engaged. The other conditions as under the last heading. (See also § V.)

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§ V. GRADUATE COURSES.

Students who take the Bachelor's degree in one of the courses provided by the Faculty of Applied Science may graduate in any of the remaining courses by attending one or more subsequent sessions.

Graduates may also take an advanced course in the branch in which they have received their degree. On passing an examination at the end of such advanced course, the Master's degree will be conferred without further examination as soon as satisfactory certificates of having been employed for two years in practical work have been received.

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§ VI. ATTENDANCE AND CONDUCT.

The regulations under this head are in all respects the same as those in force for Undergraduates in Arts.

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§ VII. LIBRARY AND MUSEUM.

Students in this Faculty have the same privileges with reference to the University Library and Museum as Undergraduates in Arts.

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§ VIII. FEES.

The total fees for all Students will be $100.00 per annum, of which amount the sum of $63.00 is for tuition, $12.00 are University fees (matriculation, library, graduation, etc.), and $25.00 are for the use of the machinery and other apparatus, as well as the cost of material in the workshops and engineering laboratories.

Every Student will be required to deposit with the Secretary of the University the sum of $5.00, as caution money for damage done to the machinery or other apparatus.

Partial Students may be admitted to the Professional Classes in any year by payment of the ordinary fees for that year; or they may attend the lectures on any subject by payment of a special fee. The fee for English or French or German is $4.00 per session. In all other subjects, the fee, unless otherwise specified, is $10.00 for each term or $20.00 for the whole session.

Special Workshop Fees.—Partial Students desirous of taking the workshop courses will be required to pay the following fees, which include cost of materials and use of all tools:

1 day, or 7 hours per week for the whole Session from				September to April:	$25 00
2 days, or 14	"	"	"	"	45 00
3 days, or 21	"	"	"	"	60 00
4 days, or 28	"	"	"	"	70 00

The fees must be paid to the Secretary, and the tickets shown to the Dean, within a fortnight after the commencement of attendance in each Session. In case of default, the Student's name will be removed from the College books, and can be replaced thereon only by permission of the Faculty, on payment of a fine of $1.

Students are required to purchase their own chemicals, etc., except in the First Year. The larger pieces of chemical apparatus will be supplied by the Laboratory, the Students being responsible for breakage.

Graduates in the Faculty of Applied Science may take further courses on payment of half the ordinary tuition fees.

Fee for the Degree of Master of Engineering or Master of Applied Science, $10.00.

If for any special reason the Degree of MA.E., or M.A.Sc., be granted *in absentiâ*, the fee will be $25.00.

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§ IX. MEDALS, EXHIBITIONS, PRIZES AND HONOURS.

1. The BRITISH ASSOCIATION GOLD MEDAL AND EXHIBITION, founded by the British Association for the Advancement of Science, in commemoration of the meeting held in Montreal in the year 1884.

The British Association Gold Medal for the Session 1893-94 will be awarded to the Student in the Fourth Year who takes the highest standing in the Mechanical Engineering Course.

2. THE STANLEY SILVER MEDAL (the gift of His Excellency The Right Honourable Lord Stanley).

The Stanley Medal for the Session 1893-94 will be awarded in the Fourth Year.

The following Exhibitions and Prizes will be open for competition at the beginning of the session, *Students being required to notify the Dean of their intention to compete, at least one week before the commencement of the examinations.*

3. A British Association Exhibition of $50.00 to Students entering the Fourth Year, the subjects of examination being the Mathematics and Theory of Structures of the Ordinary Course.

4. A SCOTT EXHIBITION of $60.00, founded by the Caledonian Society of Montreal, in commemoration of the Centenary of Sir Walter Scott, to Students entering the Third Year, the subjects of Examination being :—

(*a*) Macaulay's History of England, Vol. I, cap. I ; Scott's Lady of the Lake. (*b*) Mathematics of the Second Year Course. (*c*) French or German of the Second Year Course.

5. Two Prizes of $40.00 and $20.00, presented by H. Garth, Esq., will be open for competition to Students entering the Second Year, the subjects of Examination being :—

(*a*) Macaulay's History of England, Vol. I, cap. I ; Shakespere's Tempest. (*b*) Mathematics of the First Year course.

6. The Mason Prize of $50.00 in Electrical Engineering given by Dr. A. F. Mason for original investigation in the practical application of Electricity.

7. A Prize of $25.00, presented by E. B. Greenshields, B.A., for the best Summer Essay on a subject connected with Mining or Practical Chemistry.

8. A Prize of $25.00, presented by P. A. Peterson, M.Inst.C.E., for the best Summer Essay on a subject connected with Civil Engineering.

9. A Prize of $25.00, presented by H. Wallis, M.Inst.C.E., for the best Summer Essay on a subject connected with Mechanical Engineering.

10. A Prize of $25.00, presented by T. W. Ness, Esq., for the best Report on electrical work done during the summer by an Electrical Engineering student of the Third Year.

11. Two Prizes, each of $10.00, presented by R. Gardner, Esq., to Students entering the Third Year, for proficiency in Levelling or Transit Work.

12. A Prize of $20.00, from the British Association Medal Fund, to Students entering the Second Year, the subjects of examination being:—(*a*)—Inorganic Chemistry; (*b*)—Elements of Organic Chemistry; (*c*)—Practical Chemistry.

13. A Prize of $20.00 presented by Jos. Rielle, Esq., to students entering the Fourth Year, for practical work in Surveying and Field Astronomy.

14. Two Prizes of $25.00 and $15.00, presented by H. Garth, Esq., and two of $20.00 and $10.00, presented by R. Gardner, Esq., will be awarded to the candidates taking the highest standing in the September matriculation examinations, as determined by the results in English, Mathematics, and French or German; open to all Students entering the First Year.

15. Prizes or certificates of merit are given to such Students as take the highest place in the Sessional and Degree Examinations.

16. Honours.—On graduation, Honours will be awarded for advanced work in Professional subjects.

17. By the will of the late Dr. T. Sterry Hunt, F.R.S., an endowment has been provided for Scholarships in Practical Chemistry which it is hoped will be available before the close of next session.

18. Science Scholarships granted by Her Majesty's Commission for the Exhibition of 1851.—These Scholarships of £150 sterling a year in value are tenable for two or, in rare instances, three years. They are limited, according to the Report of the Commission, "to those branches of Science (such as Physics, Mechanics and Chemistry) the extension of which is specially important for our national industries." Their object is, not to facilitate ordinary collegiate studies, but "to enable Students to continue the prosecution of science with the view of aiding in its advance or in its application to the industries of the country."

A nomination to one of these scholarships for the year 1893 was placed by the Commission at the disposal of McGill University, and another may be granted in 1895.

It is open to Students of not less than three years standing in the Faculties of Arts or Applied Science, and is tenable at any University or at any other Institution approved by the Commission.

19. Workshop Prizes.—(*a*) A prize of $20.00, presented by C. J. Fleet, B.A., B.C.L., for bench and lathe work in the wood-working department, open to Students of not more than two terms standing in workshop practice. (*b*) Other prizes to be announced during the session.

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§ X. SPECIAL PROVISIONS.

1. Partial Students may be admitted to the professional classes upon payment of special fees (§ VIII).

2. Students in Applied Science may, by permission of the Faculty, take the Honour Classes in the Faculty of Arts.

3. Undergraduates in Arts of the Second and Third Years, or Graduates of any University, entering the Faculty of Applied Science, may, at the discretion of the Professors, be exempted from such lectures in that Faculty as they have previously attended as Students in Arts.

4. Students who have failed in a subject in the Christmas or Sessional Examinations, and who desire to regain their standing, are required to make a written application to the Dean of the Faculty for a supplemental examination. Unless such supplemental examination is passed, Students will not be allowed to proceed to any subsequent examination in the subject.

5. Students may be required to answer satisfactorily a weekly paper on such subjects of the course as shall be determined by the Faculty.

6. Students who fail to obtain their Session, and who, in consequence, repeat a Year, will not be exempted from examination in any of those subjects in which they may have previously passed, except by the express permission of the Faculty. Application for such exemption must be made at the commencement of the Session.

7. A Student may obtain a certificate of standing on payment of a fee of $2.00.

8. Certificates may be given to Students who have passed through any of the special courses attached to the curriculum.

9. The headquarters of the Canadian Society of Civil Engineers is at present located in Montreal. The Society holds fortnightly meetings, at which papers upon practical current engineering subjects are read and discussed. Undergraduates joining the Society as Students may take part in these meetings and acquire knowledge of the utmost importance in relation to the practical part of the profession.

10. Caps and gowns, also the overalls for the workshops, may be obtained from the janitor of the Engineering Building.

§ XI. COURSES OF LECTURES.

1. CIVIL ENGINEERING AND APPLIED MECHANICS.

Professor :—Henry T. Bovey, M.A., D. C. L., M. Inst.C.E., F. R. S. C. (Scott Professor of Civil Engineering and Applied Mechanics).

Theory of Structures. (For Laboratory Work, see § XII.)

The lectures on this subject embrace :—

(*a*) The analytical and graphical determination of the stresses in the several members of framed structures, both simple and complex, as, *e.g.*, cranes, roof and bridge trusses, piers, etc.

(*b*) The methods of ascertaining and representing the shearing forces and bending moments to which the members of a structure are subjected.

(*c*) A study of the strength, stiffness and resistance of materials, including a statement of the principles relating to work, inertia, energy and entropy, together with a discussion of the nature and effect of the different kinds of stress and the resistance offered by a material to deformation and to blows.

(*d*) The design and proper proportioning of beams, pillars, shafts, roofs, bridge piers and trusses, arches, masonry dams, foundations, earth works and retaining walls.

TEXT BOOK.—Bovey's Theory of Structures and Strength of Materials.

HYDRAULICS. (For Laboratory Work, see § XII.)

The lectures deal with this subject both theoretically and with reference to it practical applications.

The Student is instructed in the fundamental laws governing the equilibrium of fluids, and in the laws of flow through orifices, mouthpieces, submerged (partially or wholly) openings, over weirs, through pipes in open channels and rivers. The impulsive action of a free jet of water upon vanes, both straight and curved, is carefully discussed, and is followed by an investigation of the power and efficiency of the several hydraulic motors, as, *e.g.*, Reaction Wheels, Pressure Engines, Vertical Water Wheels, Turbines, Pumps, etc.

TEXT BOOK.—Merriman's Hydraulics.

2. SURVEYING AND GEODESY.

Professor:—C. H. MCLEOD, MA.E., M.CAN.SOC.C.E., F.R.S C.

This course is designed to qualify the Student for admission to the practice of Provincial and Dominion Land Surveying. It also affords a practical and theoretical training in Field Engineering, Practical Astronomy, and in the simpler operations of Geodetic Engineering. The instruction is given by lectures and by practice in the field, drawing room, laboratory and observatory. The course of lectures is as follows :—

SECOND YEAR.—Chain and angular surveying. The construction, adjustment and use of the various instruments. Contour surveying. Underground surveying. Topography. Ranging curves. Levelling and setting out work.

THIRD YEAR.—Railway locations. Geodetic levelling. Indirect and Barometric levelling. Hydrographic surveying. Introduction to Practical Astronomy.

FOURTH YEAR.—Geodesy. Practical Astronomy.

Each Student in this course is required to take part in the following :—

1. A chain survey. 2. A contour survey based on 1. 3. Compass surveys with and without local attraction. 4. A plane-table survey. 5. The preliminary surveys and location of a line of road, the work being afterwards set out for construction. 6. The hydrographic survey of a channel in the St. Lawrence River. 7. A triangulation survey from one base, checking on a second base. 8. The precise measurement of two base lines. 9. Differences of level by spirit level, triangulation and barometer. 10. Determinations of latitude by the zenith telescope and prime meridian methods. 11. Determination of the meridian. 12. Determinations of time by a portable astronomical transit, by sextant, and by the solar attachment. 13. Determination of longitude by the telegraphic method

and by moon culminations. 14. Exercises on the comparison of clocks and chronometers. 15. Practice in the use of field magnetic instruments.

Students engaged in these surveys are expected to keep complete notes, and from them to prepare all plans and sections required. The necessary instruction in topography and mapping is given in the drawing room.

The large drawing rooms are fitted up with suitable mountings for the various instruments, in order to permit of their use and investigation during the winter months. The equipment of surveying aud geodetic instruments includes :—

Six transits and transit theodolites. Seven levels. Four sextants. Two plane tables. Three surveyor's and three prismatic compasses. Three current-meters. A 300 foot steel tape arranged for basework. An Altazimuth. A Precision Level. A Zenith Telescope. Astronomical Transits. Break-circuit Chronometer. Chronographs. Heliotropes. Hand levels, chains, rods, tapes, barometers, pedometers, and other minor instruments.

The instruction in the Observatory and Geodetic Laboratory (see § XII.) will be given in the Fourth Year.

Examinations for Land Surveyors :—Any graduate in the Faculty of Applied Science in the Department of Civil Engineering and Land Surveying may have his term of apprenticeship shortened to one year for the profession of Land Surveyor in Quebec or Ontario, or for the profession of Dominion Land Surveyor. He must, however, pass the preliminary and final examinations before one of the Boards of Examiners. The former examination should be passed before entering the University, or in the First or Second Year of attendance.

Special provisions will be made for Students who desire to pass the Examination for Dominion Topographical Surveyor.

TEXT-BOOKS : Gillespie's Surveying, Johnson's Theory and Practice of Surveying, Shortland's Nautical Surveying, Green's Practical and Spherical Astronomy, Nautical Almanac.

3. DESCRIPTIVE GEOMETRY.

Lecturer :—C. H. McLEOD, MA.E., F.R.S.C.

FIRST YEAR.—Geometrical drawing, orthographic projections, including penetrations, developments, sections, etc. Isometric projection.

SECOND YEAR.—Problems on straight line and plane. Projections of plane and solid figures. Curved surfaces and tangent planes. Intersections of curved surfaces. Axometric projections. Shades and shadows. Mathematical perspective and the perspective of shades and shadows.

THIRD YEAR.—Graphical determination of spherical triangles. Spherical projections. Construction of maps.

4. FREEHAND AND MODEL DRAWING.

Instructor :—

This course is designed to give Students facility in observation and in sketching objects, both from the flat and from the round. Special instruction is given n sketching parts of machinery, structural work, etc.

5. ELECTRICAL ENGINEERING.

Professor:—C. A. CARUS-WILSON, M.A., M.Inst. E.E., A.M.Inst.C.E. (McDonald Professor of Electrical Engineering).

The object of this course is to introduce the Student to the principles underlying the practice of Electrical Engineering. Very little time is devoted to the consideration of strictly technical details, which the Student can far better study in the factory, where he is strongly recommended to go after his college course. The methods and the instruments used are, in almost every case, those that the Student will have eventually to use in practice. The object of the lectures is not to go over ground already covered by the text-books, except in cases where the subjects are not clearly put, but rather to direct the reading of the Students and to discuss problems arising out of the laboratory work.

The work in the Electrical Engineering laboratories is not commenced until the second term of the Third Year. By that time the Students will have gained a fair general acquaintance with Electricity in the Physical laboratory (see §XII). They will then begin a series of experiments on Electricity and Magnetism on a practical scale, using methods and instruments in ordinary practical use, still, however, confining their attention to the principles and not to their application. Thus the principle of the magnetic circuit will be studied in many different ways, but with apparatus put together for each special experiment. This term's work is preparatory to that of the Fourth Year, when the students will, in the Dynamo Room, study the practical application of these principles.

Here they will make experiments on electrical machinery of all kinds; series shunt and compound dynamos, motors, motor-generators, alternators, &c. They will be able to carry out tests of dynamos, transformers and motors under practical working conditions, not only on the apparatus in the dynamo room but also throughout the building, where there are several motors driving lathes, fans, &c., besides an electric elevator and an electric drill. In addition to these advantages they will have the opportunity of seeing a typical lighting station of twelve hundred lights at work, and may become familiar with the best practice and design on engines, dynamos, switchboard, wiring, &c.

6. MECHANICAL ENGINEERING.

Professor:—J. T. NICOLSON, B.Sc., M.Can.Soc.C.E., M.Am.Soc.M.E, (Workman Professor of Mechanical Engineering).

KINEMATICS OF MACHINERY.

Definition of a machine. Pairs. Kinematic chains. Triangles of velocity. Slider crank chain and its derivatives. Direct acting engine. Oscillating engine. Quick return motions. Curves of piston position and velocity. Error due to obliquity. Angular velocities. Curves of velocity in slider crank chain. Lever crank chain and its derivatives. Drag Links. Antiparallel mechanism. Loci

of points on moving links. Parallel motion. Peaucellier's link work. Double slider crank chain and its derivatives. Swinging cross block. Oldham's coupling. Elliptic chuck. Expansion of elements. Eccentrics. Instantaneous centre. Centrodes. Tension and Pressure Elements. Pulleys. Wheel and Axle. Differential Pulley. Belts. Rolling contact. Toothed gearing.

Dynamics of Machinery.

Dynamics of the steam engine. Curves of crank effort for single, double and triple cranks. Mean crank effort. Fluctuation of energy. Fluctuation of speed. Flywheels. Governors treated graphically; discussing stability, astatism, sluggishness and energy. Acceleration of reciprocating parts and cushioning in engines. Angular acceleration of connecting rods in high speed engines. Oscillating engine. Balancing of double and single acting engines. Dynamics of belt and rope drives, of machine tools, of the locomotive and of the indicator. Examination of indicators and dynamometers.

Friction. Laws based on recent experiments. Journal and pivot frictions. Friction in kinematic chains treated graphically.

Machine Design.

Strength of riveted joints, bolts, nuts, keys and cotters. Proportions of journals, pivots and shafting. Design of belt, rope and chain gearing. Strength and proportions of engines and boilers. Valve diagrams. Design of machine tools.

7. MINING AND METALLURGY.

Lecturer :—W. A. Carlyle, Ma.E.

The lectures on Mining are given during the Third Year, and among the subjects taken up the following may be mentioned :—Blasting and the nature and use of different Explosives, Quarrying, Hydraulic Mining, Boring; the Sinking, Timbering and Tubbing of Shafts; Driving and Timbering of Levels, Underground Conveyance and Hoisting, Drainage and Pumping, Lighting and Ventilation of Mines, special methods of Exploitation employed in the working of Metalliferous Deposits or of Coal Seams, etc.

Ore-dressing and Underground Surveying will also receive special attention. As yet there is no special mining laboratory in which practical operations in ore-dressing, etc., can be carried on, but it is hoped that this deficiency will be supplied in the near future.

In the Fourth Year a course of lectures on Metallurgy is given. The general properties of the metals and the nature of fuels, fire-clays, etc., are first discussed, and afterwards the more important metals and the methods of obtaining them from their ores by wet or dry process taken up in detail.

Students of the Fourth Year also devote considerable attention to the designing of mining machinery, furnaces, etc.

8. CHEMISTRY AND ASSAYING.

Professor:—B. J. HARRINGTON, B.A., PH.D Greenshields Professor of Chemistry and Mineralogy).

Sessional Lecturer:—NEVIL NORTON EVANS, M.A.SC.

Assistant:—HOWARD T. BARNES, B.A.SC.

This course includes lectures and laboratory work. In the First Year, Students of all the Departments attend a course of lectures on the laws of Chemical Combination, Chemical Formulæ and Equations, the preparation and properties of the more important Elements and their Compounds, etc. They also devote one afternoon a week during the first term and two afternoons a week during the second term to practical work in the Laboratory, where they learn the construction and use of ordinary apparatus, perform a series of experiments designed to cultivate the powers of observation and deduction, and begin Qualitative Analysis.

In the Second and Third Years, Students in the Department of Practical Chemistry attend lectures on the Chemistry of the metals or on Organic Chemistry, and receive instruction in Qualitative and Quantitative Analysis, including gravimetric and volumetric methods and the application of electrolytic methods to the estimation of copper, nickel, etc. Blowpipe Analysis and Determinative Mineralogy also constitute part of the work of the Third Year.

In the Fourth Year, special attention is devoted to such subjects as Mineral Analysis and Assaying, and the Analysis of Iron and Steel; but considerable latitude is allowed to Students in the choice of subjects, and organic work may, if desired, be taken up.

Students of the Mining Course take Qualitative and Quantitative Analysis during the Second and Third Years, and devote considerable attention in the Fourth Year to Mineral Analysis and Assaying of various ores, fuels, etc. They also attend the class in Blowpipe Analysis and Determinative Mineralogy in the Third Year.

The chemical laboratories (see § XII) are open daily (Saturdays excepted) from 9 a.m. to 5 p.m.

9. THERMODYNAMICS.

Lecturer:—J. T. NICOLSON, B.SC., M.CAN.SOC.C.E.

Fundamental laws and equations of thermodynamics. Application to perfect gases and to steam saturated and superheated. Efficiency of perfect heat engines. Efficiency of actual air, gas, petroleum, and steam engines.

A study of the steam engine, including wire-drawing, cylinder condensation and jacketing, and the most efficient and most economical point of cut-off. Sizes and proportions of cylinders in single, double and triple expansion engines to develop a given power. Expected indicator diagrams. Sizes and proportions of the principal types of steam generators. Comparison of practical suitability of steam and caloric engines. Theory of engine and boiler testing.

10. GEOLOGY AND MINERALOGY.

Professor :—B. J. HARRINGTON, B.A., PH.D., F.G.S. (Professor of Mineralogy).

Professor :—FRANK D. ADAMS, M.A.SC., PH.D. (Logan Professor of Geology and Palæontology).

SECOND YEAR.—A preliminary Course in Zoology, with special reference to Fossil Animals.

THIRD YEAR—Mineralogy (Ordinary and Honour), Petrography, Physical and Chronological Geology and Palæontology, Geology of Canada, Methods of Geological Exploration.

FOURTH YEAR.—Special studies in Mineralogy and Petrography ; Advanced Course in General Geology and Palæontology ; Geology of Canada ; Practical Geology and Field-work.

For further details see Announcement of the Faculty of Arts.

NOTE.—Students of the Mining and Chemistry courses take the Honour Mineralogy of the Third Year in Arts. Mining Students take the whole Honour course of the Fourth Year. Chemistry Students take, in addition to the ordinary course in Geology, the Honour Mineralogy of the Fourth Year.

11. BOTANY.

Professor :—D. P. PENHALLOW, B.SC., F.R.S.C.

Course.—General Morphology and Classification. Descriptive Botany. Flora of Canada. Nutrition and reproduction of Plants. Elements of Histology.

12. EXPERIMENTAL PHYSICS.

Professor :—JOHN COX, M.A. (McDonald Professor of Experimental Physics).

The instruction includes a fully illustrated course of Experimental Lectures on the general principles of Physics (embracing, in the Second Year—*The Laws of Energy—Heat and Light ;* in the Third Year—*Sound—Electricity and Magnetism),* accompanied by courses of practical work in the Laboratory in which the Students will perform for themselves experiments, chiefly quantitative, illustrating the subjects treated in the lectures. Opportunity will be given to acquire experience with all the principal instruments used in exact physical and practical measurements. Students of Electrical Engineering will be expected to continue their work in the Laboratory in the Fourth Year, when they will be prepared to undertake, under the guidance of the Professors, advanced measurements and special investigations bearing on their technical studies.

13. MATHEMATICS AND MATHEMATICAL PHYSICS.

Professor :—G. H. CHANDLER, M.A.

Lecturer :—R. S. LEA, M.A.Sc.

The work in this department is conducted from the outset with special reference to the needs of Students of Applied Science. Much time is given to practice in the use of Mathematical Tables, particular attention being paid to the solution of triangles, the tracing of curves, graphical representation of functions, reduction of observations, etc. Areas, volumes, masses, centres of gravity, moments of inertia, etc., are determined both by calculation and by observation or experiment, and each method is made to supplement or illustrate the other. In this connection use will be made, in actual laboratory practice, of a large amount of apparatus, such as balances, Atwood's Machine, inclined planes, chronographs, rotation apparatus of various kinds, etc. The different methods of approximation, the reduction of results of experiments and observations by least squares, etc., will also receive due attention.

The lectures will embrace the following subjects :—

FIRST YEAR.—Euclid, to the end of Book VI., with exercises on Loci, Transversals, etc. Algebra, including the Binomial Theorem. Elements of Solid Geometry and of Geometrical Conic Sections. Plane and Spherical Trigonometry. Elementary Kinematics and Dynamics.

SECOND YEAR.—Analytic Geometry. Differential and Integral Calculus. Dynamics of Solids and Fluids.

THIRD AND FOURTH YEARS.—Continuation of Analytic Geometry, Calculus and Dynamics

Classes will also be held for advanced (optional) work in these subjects and also in Practical and Spherical Astronomy.

Text-Books (Partial list) : Todhunter's or Mackay's Euclid, Hall and Knight's Elementary Algebra, Wilson's Solid Geometry and Conic Sections, Wentworth's Analytic Geometry, Chandler's Calculus, Blaikie's Dynamics, Wright's Mechanics, Bottomley's Mathematical Tables, Chambers' Mathematical Tables.

14. ENGLISH LANGUAGE AND LITERATURE.

Professor :—C. E. MOYSE, B.A. (Molson Professor of English Language and Literature).

Lecturer :—PAUL T. LAFLEUR, M.A.

FIRST YEAR.—English Language and Literature.

SECOND YEAR.—A special course on English Composition.

THIRD YEAR.—A special course on English Composition

15. FRENCH AND GERMAN.

French Language and Literature.

Professor :—P. J. DAREY, M.A., B.C.L., LL.D., Officier d'Académie.

First Year.—Darey, Principes de Grammaire Française. Lafontaine, Choix de fables. Molière, l'Avare. Dictation. Colloquial exercises.

Second Year.—Racine, Esther. Ponsard, l'Honneur et l'Argent. Contanseau, Précis de Littérature Française, depuis son origine jusqu'à la fin du XVIIIe siècle. Translation into French, Johnson's Rasselas. Dictation. Parsing. Colloquial exercises.

German Language and Literature.

Lecturer :—L. R. GREGOR, B.A.

First Year.—Vandersmissen and Fraser's German Grammar; Joynes' German Reader; Dictation; Colloquial exercises.

Second Year.—Vandersmissen and Fraser's German Grammar; Adler's Progressive German Reader (selections from Sections 3-5). Storm's Immensee; Von Hillern, Höher als die Kirche; Parsing; Dictation; Colloquial exercises.

Third Year.—Vandersmissen and Fraser's German Grammar. Lessing, Minna von Barnhelm; Schiller, Siege of Antwerp; History of German Literature prior to the 18th century; German Composition; Dictation.

16. METEOROLOGY.

Instruction in Meteorological Observations will be given in the Observatory at hours to suit the convenience of the Senior Students.

Certificates will be granted to those Students who pass a satisfactory examination on the construction and use of Meteorological Instruments and on the general facts of Meteorology.

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§ XII. LABORATORIES.

In the Laboratories the Student will be instructed in the art of conducting experiments, a sound knowledge of which is daily becoming of increasing importance in professional work.

1. LABORATORY OF MATHEMATICS AND DYNAMICS.—The Laboratory connected with the mathematical lecture-room is fully equipped with instruments for the measurement of distance (scales, micrometers), of area (planimeters), of volume (flasks, graduated vessels,

etc.), of time (clocks, chronographs), of mass (beam and spring balances); it is also provided with specific gravity balances, Atwood and Morin machines for experiments on the Laws of Motion, inclined planes, a variety of rotation apparatus (gyroscope, Maxwell's Dynamical Top, torsion balance, pendulums, etc.), air pumps, thermometers, barometers, etc.

2. CHEMICAL LABORATORIES.—The Chemical Laboratories are three in number,—one for Students of the First Year, one for Students of the Second and Third Years, in which it has been found necessary to carry on both qualitative and quantitative work, and one which is reserved for Students of the Fourth Year and for special Students who may wish to carry on original investigations. There is also a special room in the basement which is fitted up for fire assaying.

The Laboratories are supplied with four balances by Becker & Sons, one Bunge and a bullion-balance by Trœmner. There are also a Laurent polariscope, a spectroscope by Dubosque, gas combustion and melting furnaces, apparatus for ele trolytic work, etc., etc. Distilled water is obtained by means of a special boiler placed in the basement, which also supplies the steam for drying ovens, steam baths and drying chamber in the upper Laboratories.

3. PHYSICAL LABORATORY.—The McDonald Physical Laboratory contains five storeys, each of 8,000 square feet area. Besides a lecture theatre and its apparatus rooms, the Building includes an elementary laboratory nearly 60 feet square; large special laboratories arranged for higher work by advanced students in Heat and Electricity, a range of rooms for optical work and photography; separate rooms for private thesis work by students; and two large laboratories arranged for research, provided with solid piers and the usual standard instruments. There are also a lecture room, with apparatus room attached, for Mathematical Physics, a special physical library, and convenient workshops. The equipment is on a corresponding scale, and comprises: (1) apparatus for illustrating lectures; (2) simple forms of the principal instruments for use by the students in practical work; (3) the most recent types of all the important instruments for exact measurement, by first class makers, for use in the laboratories for special work and research.

4. Testing Laboratories.—The principal experiments carried out in these will relate to the elasticity and strength of materials, friction, the theory of structures, the accuracy of springs, gauges, dynamometers, etc., the efficiency of shafting, gearing, etc. The equipment includes a 100-ton Wicksteed and a 75-ton Emery machine for testing the tensile, compressive and transverse strength of materials. For the former, an addition has been specially designed, by means of which the transverse strength of timbers up to 25 feet in length can be determined. The Emery machine is constructed and graduated with such accuracy as to render possible delicate experiments on elasticity. The Laboratories are also provided with an autographic torsion machine for testing the torsional strength of materials, machines for determining the effect of repeated stresses, oil testers, strain extensometers, etc., and a very complete supply of gauges, micrometers, and other apparatus for exact measurements.

The importance of tests of the strength of mortars and cements is very great, and the equipment of the Laboratory for the purpose is on a complete plan, including three one-ton tensile testing machines, representing the best English and American practice, steaming apparatus, special weighing hopper, spring balances, gun metal moulds, etc. A line of shafting driven by an electric motor renders it possible to prepare the mixtures and place them in the moulds, mechanically, thus eliminating the personal error. The Laboratory is also fitted with copper-lined cisterns in which the briquettes may be submerged for any required time.

5. Thermodynamic Laboratory.—The Thermodynamic Laboratory is furnished with an experimental steam engine of 80 I.H.P., specially designed for the investigation of the behaviour of steam under all possible conditions; there are four cylinders, which can be connected so as to allow of single, compound, triple or quadruple expansion, condensing or non-condensing, with or without jackets. The measurements of heat are made by large tanks, which receive the condensing water and the condensed steam. There are two hydraulic absorption brakes for measuring the mechanical power developed, and an alternative friction brake for the same purpose. Besides this large steam engine, a high speed automatic cut-off by

Robb-Armstrong of Amherst, N.S., an Atkinson cycle and an Otto gas engine, a Stirling hot air engine by Woodbury Merrill of Ticonderoga, are provided and completely fitted for purposes of measurement and research. Many smaller instruments are provided or are in course of construction for illustrating the general principles of thermodynamics. Calorimeters, delicate thermometers and gauges, a mercury column, apparatus for repeating Regnault's experiments on steam, for investigating the properties of super-heated steam and other working fluids, draft gauges, pyrometers, fuel testers, indicators, planimeters and a Moscrop recorder.

A 40 horse power, two-stage air compressor of most modern make for a central station is under construction in the workshops of the College, and will, it is hoped, be added to the laboratory during next session.

Of the five boilers which supply steam, three are fitted for experimental purposes.

6. Electrical Laboratories.—These consist of

(1) *The Electrical Laboratory Proper*, where the standard instruments are kept and experiments made in the electrical course. The instruments comprise, amongst others, two of Lord Kelvin's electric balances, a Thomson galvanometer, four d'Arsonval galvanometers, two Siemens dynamometers, two Kelvin electrostatic voltmeters, a complete set of Weston ammeters and voltmeters, besides resistance coils, etc.

Current is supplied to all parts of the room from one of the lighting dynamos direct and from the accumulator room.

(2) *The Magnetic Laboratory.*—Here are set up a ballistic galvanometer, Ewing's curve tracer, and a variety of apparatus made in the College for magnetic tests of various kinds.

(3) *The Dynamo Room.*—The apparatus here consists of a 25 K W Edison dynamo, two 12 K W Edison dynamos, a 12 K W Mordey alternator made specially for this laboratory (the coils on the armature can be moved round through any angle and two or three currents of any phase difference obtained), a 7 K W Victoria dynamo, a 7 K W Fort Wayne dynamo, a 6 K W Thomson-Houston arc-light dynamo, a 15 K W Thomson-Houston incan-

descent dynamo, and a 5 K W Brush arc light dynamo. All these are driven off magnetic clutch pulleys by an 80 horse power MacIntosh and Seymour engine. There are also here several different transformers, motors, arc lamps, etc., and a 3 K W motor-generator.

(4) *The Lighting Station.*—This comprises a 30 K W Edison-Hopkinson dynamo, and a 30 K W Siemens dynamo, each driven by a Willans high speed engine. The switch board is arranged so that the building—containing twelve hundred lights—can be lighted by the two dynamos in series, or, if the load is light, by one running on two wire system or by accumulators. The whole is in every respect typical of the best English and American practice.

(5) *The Accumulator Room.* — Containing Crompton-Howell storage cells of a united capacity of eight hundred ampere hours.

7. Geodetic Laboratory.—There is in this Laboratory a Rogers comparator for the investigation of standards of length, a Rogers angular dividing engine for the graduation and investigation of circles, a Munro-Rogers linear dividing engine, an astronomical clock and chronograph, a portable Bessel's reversible pendulum apparatus, a Whitworth end-measuring machine, level triers, etc. In connection with the Laboratory there is also a fifty foot comparator and standard of length, for standardizing steel bands, chains, tapes, rods, etc.

8. Hydraulic Laboratory. Here the Student will study practically the flow of water through orifices of various forms and sizes, submerged openings, over weirs, through pipes, mouth-pieces, etc. The laboratory is supplied with several tanks for gauging and other purposes, the largest having a height of 30 feet and a sectional area of 25 square feet, also with a large number of delicate pressure gauges and other apparatus. The Students themselves carry out tests upon hydraulic motors, *e.g.*, upon the different turbines, pumps, the Pelton and other wheels, etc. The facilities for conducting such experiments are unusually great, as from the city water supply there is an available head of over 200 feet.

By means of specially designed apparatus, investigations are carried out as to the force with which water, issuing from orifices, pipes, nozzles, etc., impinges upon surfaces of various forms and sizes.

This Laboratory is also to be provided with a set of pumps specially designed for experimental work and research. They are to be adapted to work under all pressures up to 120 lbs. per sq. in., and at all speeds up to the highest found practicable. The set is composed of three vertical single acting plunger pumps of 7'' diam. x 18'' stroke, driven by one shaft. They are to have two interchangeable valve chests, and it is arranged that both the valves and their seats may be removed and replaced by others.

9. MECHANICAL LABORATORY.—In this Laboratory experiments will be carried out on the efficiency of belts, shafting, and machine tools. Governors of all types will be tested with the chronograph. Lubricants by journal friction testing machine. Sliding and rolling friction and the stiffness of ropes will also form subjects for experiment.

§ XIII. MUSEUMS.

The Peter Redpath Museum contains large and valuable collections in Botany, Zoology, Mineralogy and Geology, arranged in such a manner as to facilitate the work in these departments. Students have access to this Museum, in connection with their attendance on the classes in Arts in the subjects above named, and also by tickets which can be obtained on application. Students will also have the use of a Technical Museum, occupying the whole of the third story of the McDonald Building. Amongst other apparatus the Museum contains the Reuleaux collection of kinematic models, presented by W. C. McDonald, Esq., and pronounced by Professor Reuleaux to be the finest and most complete collection in America.

§ XIV. WORKSHOPS.

The workshops erected on the Thomas Workman Endowment have a floor area of more than 25,000 sq. ft.

The practical instruction in the workshops is solely designed to give the Student some knowledge of the nature of the materials of construction, to familiarize him with the more important hand and machine tools, and to give him some manual skill in the use of the same. For this purpose, the Student, during a specified number

of hours per week, will work in the shops under the direct superintendence of the Professor of Mechanical Engineering, aided by skilled mechanics. The courses commence with graded exercises and gradually lead up to the making of joints, members of structures, frames, etc., finally concluding in the iron-working department with the manufacture of tools, parts of machines, and, if possible, with the building of complete machines.

The equipment includes the following :—

In the Carpenter, Wood-Turning and Pattern-Making Departments.—Carpenters' and pattern-makers' benches, wood-lathes, a large pattern-maker's lathe, circular-saw benches, jig and band saws, buzz-planer, wood-borer, universal wook-worker, etc.

In the Machine Shop.—The most improved engine lathes, a 36-in. modern upright drill, with compound table, universal milling machine, with vertical milling attachment, hand lathes, planer, universal grinding machine, universal cutter and reamer grinder, a 16-in. patent shaper, vise-benches, etc.

In the Smith Shop.—Forges, hand drill, and a power hammer.

In the Foundry.—A cupola for melting iron, core oven, brass furnace, moulders' benches, etc.

The machinery in the shops is driven by a 50 I. H. P. compound engine and a 10 I. H. P. high speed engine.

ADDENDUM.

Whitworth Scholarships.

Four Whitworth Scholarships and 30 Whitworth exhibitions of values ranging from £400 to £50 are open for competition to all British subjects every year in the month of May. Candidates must be under 26 years of age and have served three years in the Workshops of a Mechanical Engineer.

Particulars may be had on application to the Dean.

FACULTY OF APPLIED SCIENCE—TIME TABLE.

Years	R.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
First Year.	9	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Shopwork.
	10	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Do
	11	English.	French. Drawing.	French. German.	French. German.	English.	Do
	12	Chemistry.	German. Drawing.	English.		Chemistry.	Do
	2 to 5	Geom. Drawing.	Geom. Drawing (*a*). Pract. Chemistry (*b*).	Shopwork.	Freehand Drawing.	Pract. Chemistry.	
Second Year.	9	Mathematics.	Mathematics.	French.	Mathematics.	French.	Shopwork, 4.
	10	Physical Laboratory.	German.	Mathematics.	Mechanism 2, 3. Surveying, 1, 4. Chemistry, 5.	German.	Do
	11	Do	Zoology, 1, 4	Mathematics. Botany, 5.	Zoology, 1, 4.	Mathematics.	Do
	12	Do Botany, 5.	Experimental Physics.	Mechanism, 2, 3. Surveying, 1, 4.	Experimental Physics.	English.	Do
	2 to 5	Mapping, 1. *Chemistry, 4, 5. Shopwork, 2, 3.	Surveying (1 hr.), 1, 4. Desc. Geom., 1, 2, 3, 4, 5.	Shopwork, 1. * Chemistry, 4, 5. Mechl. Drawing, 2, 3.	Shopwork, 2, 3. Mapping, 1, 4. * Chemistry, 5.	Physical Laboratory, 1, 2, 3, 5.	

* The Chemical Laboratories are open to Second, Third and Fourth Year classes daily (Saturdays excepted) from 9 a.m. to 5 p.m.

Field work during September and October, 2 to 5 p.m. For 2nd Year *Civil*, on Mondays, Tuesdays, Wednesdays, Thursdays and Fridays. For *Mining*, on Mondays, Tuesdays, Thursdays and Fridays. For 3rd Year *Civil* and *Mining*, on Mondays, Wednesdays, Thursdays and Fridays. For 4th year *Civil*, on Saturday mornings and two first clear evenings each week, 7 to 9.

(*a*) First Term. (*b*) Second Term.

1. Civil Engineering Students. 2. Electrical Engineering Students. 3. Mechanical Engineering Students. 4. Mining Engineering Students. 5. Practical Chemistry Students.

FACULTY OF APPLIED SCIENCE—TIME TABLE—*Continued.*

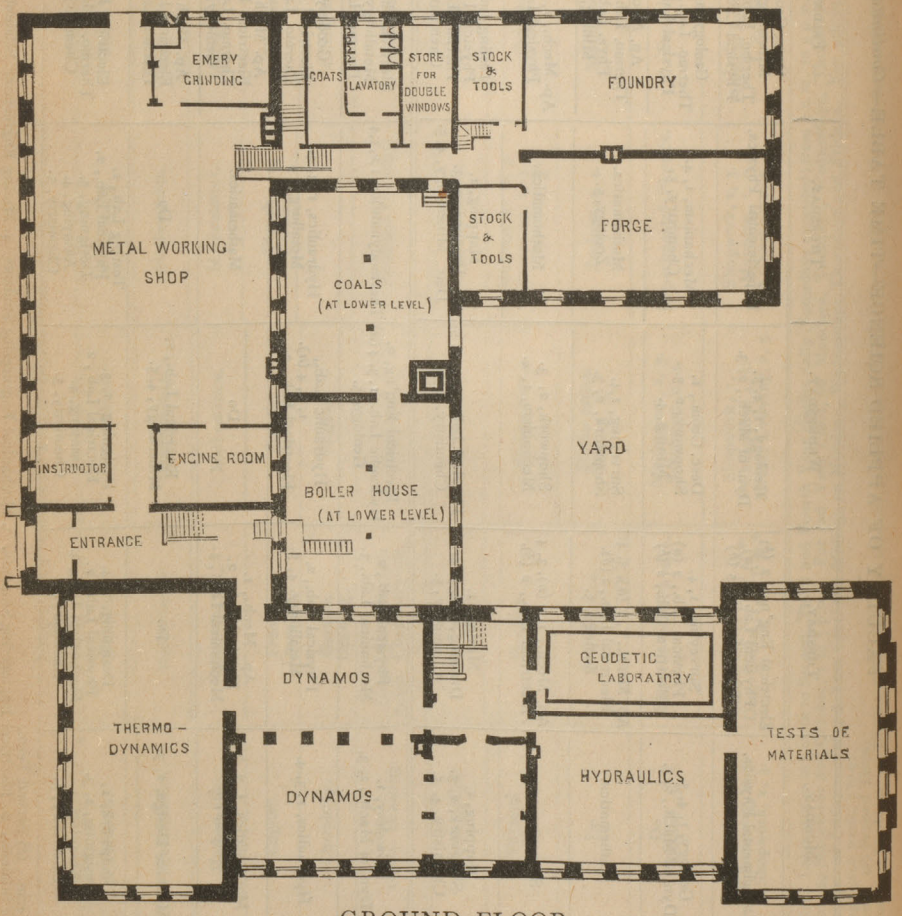
Years	Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
THIRD YEAR.	9	Experimental Physics.	Electrical Eng'ng., 2 (*b*) Physical Lab., 2 (*a*) Mineralogy, 4, 5 (*b*)	Geology, 1, 4, 5. Dyn. of Mach., 2, 3.	Experimental Physics.	Desc. Geom., 1. Mineralogy, 4, 5. Thermo. Lab., 2 (*a*) 3. Physical Lab., 2 (*b*).	Testing Lab., 1, 2 (*a*), 3. Electrical Lab., 2 (*b*).
	10	Geology, 1, 4, 5. Dyn. of Mach., 2, 3.	Surveying, 1, 4. Physical Lab., 2 (*a*) Electrical Lab., 2 (*b*)	Desc. Geom., 1. Shopwork, 2, 3. Mining, 4.	Mechanism, 1, 4. Chemistry, 5.	Geology, 1, 4, 5. 3. Thermo. Lab., 2 (*a*) Physical Lab., 2 (*b*)	Do
	11	Mathematics.	Ap. Mech., 1, 2 (*a*), 3, 4. Electrical Lab., 2 (*b*). Zoology, 5.	Surveying, 1,4. Shopwork, 2, 3.	Mathematics. Zoology, 5.	Ap. Mech., 1. Thermo. Lab., 2 (*a*) 3. Phys. Lab., 2 (*b*). Mining, 4.	Do
	12	Surveying, 1, 4.	Ap. Mech., 1, 2 (*a*), 3, 4. Electrical Lab., 2 (*b*).	Shopwork, 2, 3. Mechanism, 1, 4.	Mathematics.	Ap. Mech., 1, 2 (*a*), 3, 4 Physical Lab., 2 (*b*)	
	2 to 5	Mapping, 1. Shopwork, 2, 3. Chemistry, 4, 5.	Mining, 4. Drawing, 1, 2, 3, 4. Chemistry, 5.	Physical Lab., 1, 2, 3, 5. Chemistry, 4, 5.	Mapping, 1. Drawing, 2, 3. Detr. Mineralogy, 4, 5.	Testing Lab., 1. Physical Lab., 2, 4. Thermo. Lab., 3. Chemistry, 5.	
FOURTH YEAR.	9	Geodesy, 1. Dyn. of Mach., 2, 3.	Physical Lab., 2. Mechanical Lab., 3.	Electrical Eng'ng, 2. Hydraulic Lab., 1, 3, 4 (*a*) Geology, 5.	Thermodynamics, 1,2,3,4	Electrical Eng'ng., 2. Metallurgy, 4, 5. Thermo. Lab., 3.	Geodetic Lab., 1. Shopwork, 2, 3.
	10	Hydraulics, 1, 3, 4.	Physical Lab., 2. Metallurgy. 4, 5.	Hydraulic Lab., 1, 3, 4 (*a*). Electrical Lab., 2.	Hydraulics, 1, 3, 4. Metallurgy, 4	Geodesy, 1. Electrical Lab., 2. Thermo. Lab., 3.	Do
	11	Mathematics, 1, 2, 3. Geology, 4.	Ap. Mech., 1. Physical Lab., 2. Mechanical Lab., 3.	Do	Mathematics.	Ap. Mech., 1. Electrical Lab., 2. Thermo. Lab., 3. Geology, 4.	Do
	12	Machine Design, 2, 3.	Do	Electrical Lab., 2. Mineralogy, 4, 5.	Do	Ap. Mech., 1. Electrical Lab., 2. Thermo. Lab., 3.	Do
	2 to 5	Shopwork, 1. Designing, 2, 3. Assaying, 4. Chemistry, 5.	Designing, 1, 4. Physical Lab., 2. Mechanical Lab., 3. Chemistry, 5.	Designing, 1, 3. Electrical Lab , 2. Assaying, 4. Chemistry, 5.	Testing Lab., 1. Physical Lab., 2. Designing, 3. Assaying, 4. Chemistry, 5.	Electrical Lab., 2. Thermo. Lab., 1, 3. Chemistry, 5.	

(*a*) First Term. (*b*) Second Term.

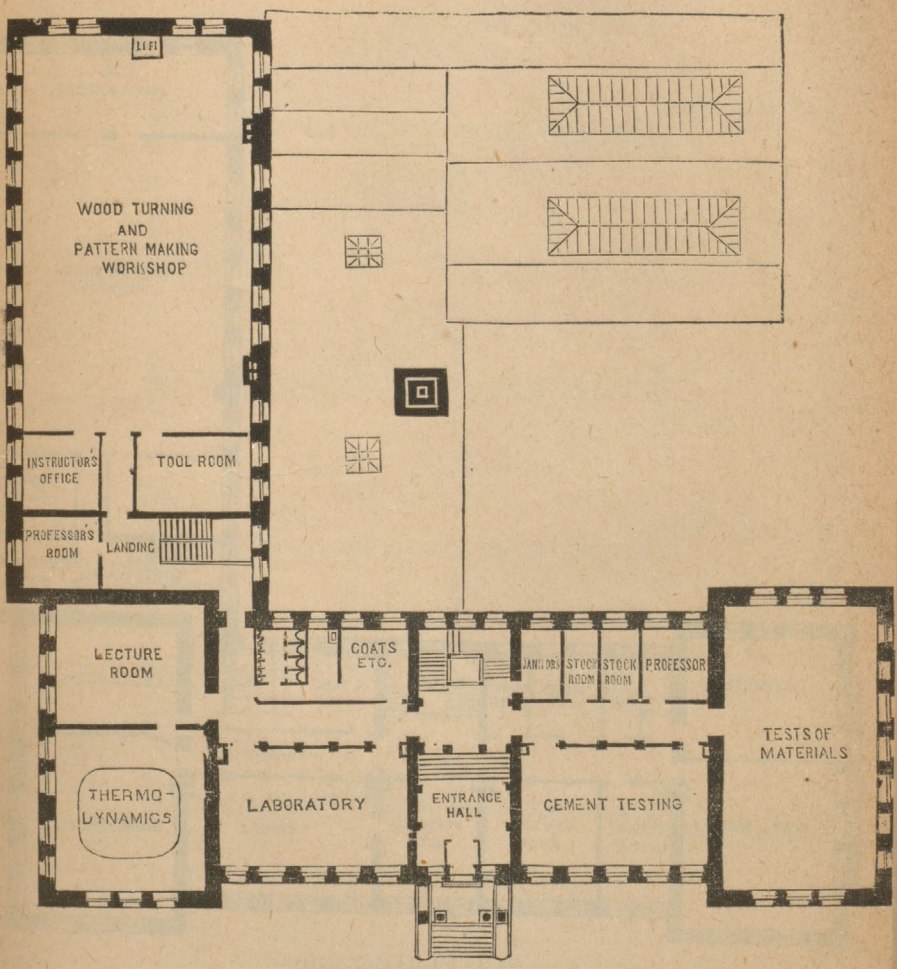
1. Civil Engineering Students. 2. Electrical Engineering Students. 3. Mechanical Engineering Students. 4. Mining Engineering Students. 5. Practical Chemistry Students.

PLANS OF THE APPLIED SCIENCE BUILDINGS.

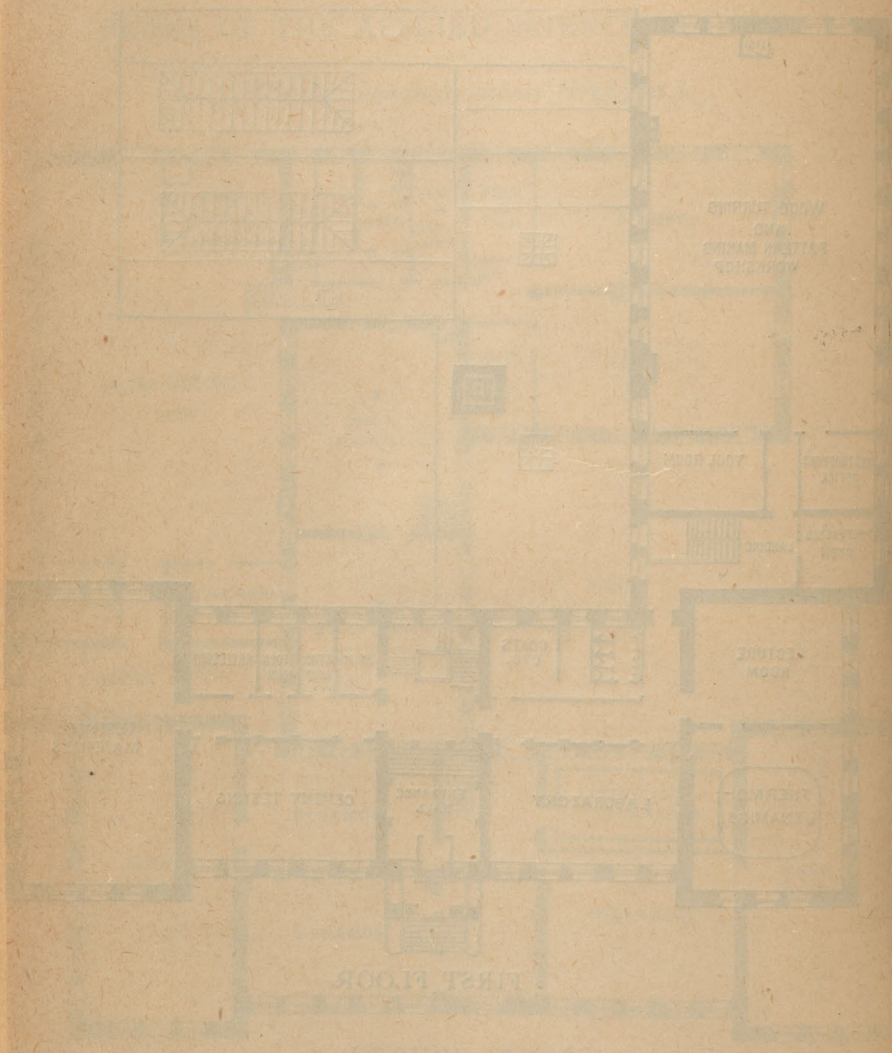
(Scale : one inch=about forty feet.)

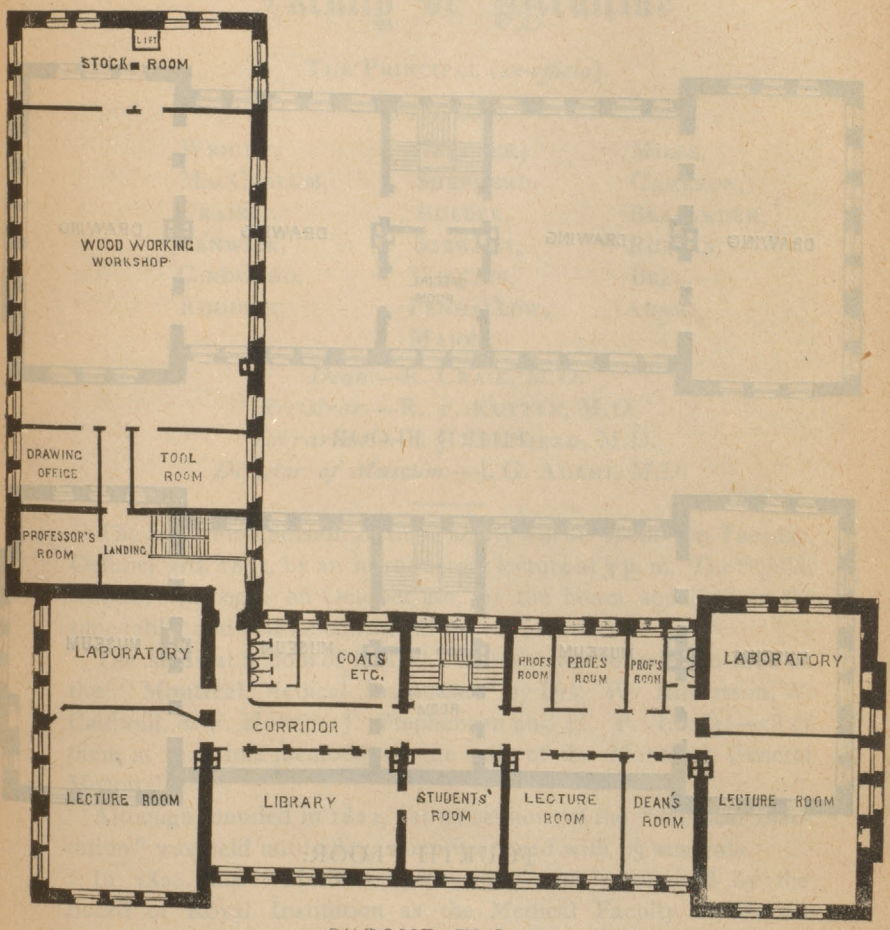


GROUND FLOOR.

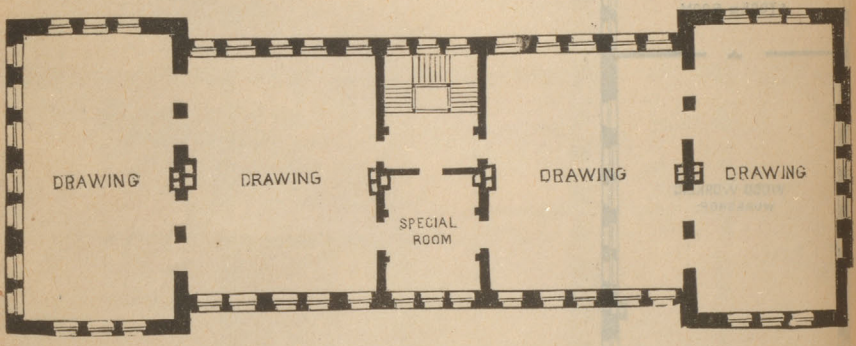

WOOD TURNING
AND
PATTERN MAKING
WORKSHOP
INSTRUCTOR'S
OFFICE
TOOL ROOM
PROFESSOR'S
ROOM
LANDING
LECTURE
ROOM
COATS
ETC.
JANITOR'S
STOCK
ROOM
STOCK
ROOM
PROFESSOR
TESTS OF
MATERIALS
THERMO-
DYNAMICS
LABORATORY
ENTRANCE
HALL
CEMENT TESTING

FIRST FLOOR.

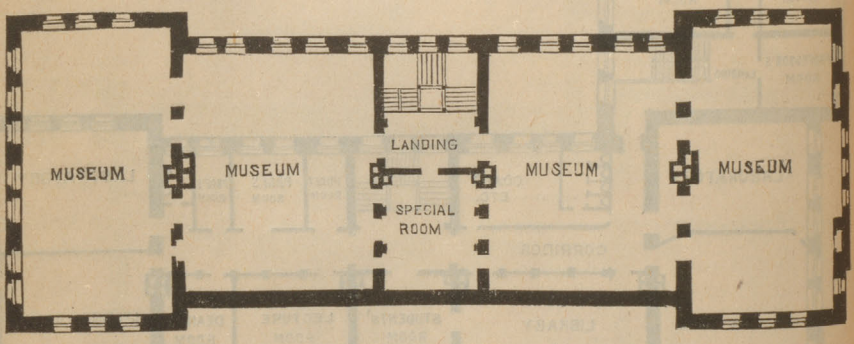




SECOND FLOOR.



THIRD FLOOR



FOURTH FLOOR.

Faculty of Medicine

THE PRINCIPAL (*ex-officio*).

Professors.

WRIGHT,	GARDNER,	MILLS,
MACCALLUM,	SHEPHERD,	CAMERON,
CRAIK,	BULLER,	BLACKADER,
FENWICK,	STEWART,	RUTTAN,
GIRDWOOD,	WILKINS,	BELL,
RODDICK,	PENHALLOW,	ADAMI,
	MAJOR.	

Dean.—R. CRAIK, M.D.
Registrar.—R. F. RUTTAN, M.D.
Librarian.—F. J. SHEPHERD, M.D.
Director of Museum.—J. G. ADAMI, M.D.

The Sixty-First Session of this Faculty will be opened on Tuesday, October 3rd, 1893, by an introductory lecture at 3 p. m. The regular lectures will begin on October 4th, at the hours specified in the time-table, and will be continued for six months.

The Medical School of McGill University was founded in 1822 as the "Montreal Medical Institution" by Drs. W. Robertson, W. Caldwell, A. F. Holmes, J. Stephenson and H. P. Loedel—all of them at that time members of the staff of the Montreal General Hospital.

Although founded in 1822, yet no session of the "Medical Institution" was held until 1824, when it opened with 25 students.

In 1828, the "Medical Institution" was recognised by the Board of Royal Institution as the Medical Faculty of McGill University. At this time the lectures were given in a building on the site of the present Bank of Montreal. Later, the school was removed to a brick building still standing near the corner of Craig and St. George streets.

In 1846, the lectures of the Faculty were given in the present

central building of the University, now occupied by the Faculty of Arts. Students could reside in the College, board and lodging being charged at the rate of £3 5s. ($13) a month.

On account of the inconvenience arising from the distance of the University Buildings from the centre of the city, it was decided in 1850 to erect a Medical school building in Cotté street, provided with ample accommodation for Library and Museum, and furnished with a large dissecting-room and two lecture rooms ; this building was occupied for the first time during the session 1851-2, and sufficed for the wants of the Faculty until 1872-73, when the present main building was provided for it by the Governors of the University.

In 1824, the number of students in the Faculty was 25 ; in 1844, 50 ; in 1851, 64, with 15 graduates ; in 1872-3, 154, with 35 graduates ; in 1892-3, 315, with 46 graduates.

There were no sessions held during the political troubles from 1836 to 1839, and it is owing to this gap that the present is the 61st session of the Faculty. This is in reality the 65th session of the school, which is the direct continuation of the " Montreal Medical Institution."

In 1885, the building in the University grounds, erected by the Governors for the use of this Faculty, was found inadequate. A new building was then added, which, at the time, afforded ample facilities for carrying out the great aim of the Faculty,—that of making the teaching of the primary branches thoroughly practical.

The laboratories and lecture rooms, then added, have now become filled, and so great have been the advances in medicine and in methods of laboratory teaching, that it has been necessary again to increase the number and size of the laboratories. Owing to the timely generosity of Mr. John H. R. Molson, who has already done so much for the University, the Faculty are able to announce that their present facilities for teaching will, during the coming year, be almost doubled.

The new buildings will be erected as an extension of the old ones, towards the northwest, partially facing Carlton road, and convenient to the Royal Victoria Hospital. They will comprise a pathological wing, consisting of several special laboratories, and rooms for private research ; a large modern lecture room, capable of accommodatin

450 students, with adjoining preparation rooms and new suites of laboratories for Physiology, Histology, Pharmacology and Sanitary Science. The laboratories, etc., in the older buildings, will be greatly enlarged and improved; the whole of the first floor will be devoted to the anatomical department, and will be divided into a dissecting-room, bone-room, preparation rooms, Professors' and Demonstrators' rooms, etc.

On the ground floor the Library and Museum will be greatly enlarged: a room adjoining the Library will be set apart as a reading-room for the use of students, and the present chemical laboratories will be increased by including the rooms now used by the department of Physiology.

The Faculty is glad to be able to announce that, by the liberality of the Honble Sir Donald A. Smith in endowing the chairs of Pathology and Sanitary Science with one hundred thousand dollars, it is able to establish these departments on a footing fully commensurate with their importance and with the advances and requirements of modern medical science.

§ I. MATRICULATION.

Intending Students who purpose practising Medicine in Canada, are requested to observe that by the Regulations in force in the various Provinces of the Dominion they are required to pass the Matriculation examination accepted by the several Registering Boards of these provinces before beginning their course of study.

Students holding the degree of Bachelor of Arts are exempted from examination for matriculation, but must present their diplomas and be registered before beginning their studies.

The Preliminary Examination in General Education of the following Bodies is accepted by this University in lieu of its own Matriculation Examination :—

1. The College of Physicians and Surgeons, Ontario.
2. The College of Physicians and Surgeons, Quebec.
3. The New Brunswick Medical Board.
4. The Nova Scotia Medical Board.
5. The Manitoba Medical College.
6. Students who have passed the matriculation examination of recognized Universities.

Students not having any of the above qualifications for entrance are required to pass one or other of the following examinations :—

1. The June Matriculations in Arts of this University, commencing June 1, 1893.

Papers for the June examination can be sent to local centres on application to the Secretary of the University. The September examinations are held in Montreal only.

The subjects for examination are Classics, Mathematics and English.

Greek.—Xenophon, Anabasis, Book I. ; Greek Grammar.

Latin.—Cæsar, Bell. Gall., Book I., and Virgil, Æneid, Book I., lines 1-300 ; Latin Grammar.

Mathematics.—Arithmetic, including the Metric System ; Algebra, to Simple Equations (inclusive), Euclid's Elements, Books I., II., III. (In June, 1893, to Quadratics inclusive.)

English.—Writing from Dictation. A paper on English Grammar, *including* Analysis. A paper on the leading events of English History. Essay on a subject to be given at the time of the examination.

2. The September Examination in Arts of the University, held in McGill College only, on Sept. 15th, 1893, and following days, and including the same subjects above stated, except that alternative books in the classical subjects will be accepted.

3. The special Examination for entrance into the Faculty of Medicine, which is the same as that required by the Medical Council of Great Britain.

[After March, 1894, this special examination will be discontinued. The matriculation examination for this Faculty will after that date be the junior matriculation in Arts as prescribed above, omitting Greek as a compulsory subject and substituting for it one of the following optional subjects : (*a*) Greek as now prescribed, (*b*) Elementary Chemistry and Physics, (*c*) French, (*d*) German.]

This Examination will be held on the last Friday and Saturday in March, and the third Friday and Saturday in September of each year. Application may be made to Dr. Howe, the examiner, till the evening of the previous day. The requirements of the standard for Matriculation are :—(1) English Language, ncluding Grammar and Composition. (2) English History. (3) Modern Geography. (4) Latin, including Translation from the original, and Grammar. (5) Elements of Mathematics, comprising : (*a*) Arithmetic, including Vulgar and Decimal Fractions ; (*b*) Algebra, including simple Equations ; (*c*) Geometry,

including the first three books of Euclid or the subjects thereof. (6) Elementary Mechanics of Solids and Fluids, comprising the elements of Statics, Dynamics and Hydrostatics. (7) One of the following optional subjects :—(*a*) Greek, (*b*) French, (*c*) German, (*d*) Logic, (*e*) Botany, (*f*) Elementary Chemistry.

TEXT-BOOKS.—Latin, Cicero, in Catilinam I. ; or Virgil, Æneid, Bk. I. ; or Cæsar, Bell. Brit.

GREEK.—Xenophon, Anabasis, Bk. I., or Homer's Iliad, Bk. IV.

FRENCH.—Voltaire's Charles XII., I and II Books.

NATURAL PHILOSOPHY.—Ganot's Physics, Books I, II and III.

BOTANY.—Gray's "How Plants Grow."

ELEMENTARY CHEMISTRY.—Storer and Elliot's Manual.

§ II. ENREGISTRATION.

The following are the University Rogulations :—

All Students desirous of attending the Medical Lectures shall, at the commencement of each Session, enroll their names and residences in the Register of the Medical Faculty.

The said Register shall be closed on the last day of October in each year. Fees are payable to the Registrar, and must be paid in advance at the time of enregistration.

§ III. COURSES OF LECTURES.

ANATOMY.

PROFESSOR, FRANCIS J. SHEPHERD.

Anatomy is taught in the most practical manner possible, and its relation to Medicine and Surgery fully considered. The lectures are illustrated by the fresh subject, moist and dry preparations, sections, models and plates, and drawings on the blackboard.

Special attention is devoted to Practical Anatomy, the teaching being similar to that of the best European schools. The Dissecting Room is open from 8 a.m. to 10 p.m., the work being conducted under the constant supervision of the Professor and his staff of Demonstrators. Special Demonstrations on the Brain, Thorax, Abdomen, Bones, etc., are frequently given. Every Student must be examined *at least* three times on each part dissected, and if the examinations are satisfactory, a certificate is given. Prizes are awarded at the end of the Session for the best examination on the fresh subject. Abundance of material provided.

CHEMISTRY.

PROFESSOR, GILBERT P. GIRDWOOD.

ASSISTANT PROFESSOR, R. F. RUTTAN.

Inorganic Chemistry is fully treated ; a large portion of the course is devoted to Organic Chemistry and its relations to Physiology. The branches of Physics bearing upon or connected with Chemistry also engage the attention of the Class. For experimental illustration abundant apparatus is possessed by the College.

The Chemical Laboratory will be open to the members of the class, to repeat experiments performed during the course, under the superintendence of the Professor or Lecturer.

PRACTICAL CHEMISTRY.

PROFESSOR, GILBERT P. GIRDWOOD.

ASSISTANT PROFESSOR, R. F. RUTTAN.

The course in Practical Chemistry includes two hours' laboratory work three times a week for three months. The Students are instructed individually in chemical manipulations, blow-pipe analysis, and qualitative determination of the salts, acids, etc., they will require to use in practice. They are required before finishing their course to be familiar with the principles of practical Forensic and Sanitary Chemistry. Special attention is directed to instructing the Student in making accurate notes of his experiments and his conclusions. These notes are examined daily, and criticized.

PHYSIOLOGY.

PROFESSOR, T. WESLEY MILLS.

The purpose of this Course is to make Students thoroughly acquainted, as far as time permits, with modern Physiology: its methods, its deductions, and the basis on which the latter rest. Accordingly a full course of lectures is given, in which both the Experimental and Chemical departments of the subject receive attention.

In addition to the use of diagrams, plates, models, etc., every department of the subject is experimentally illustrated. The experiments are free from elaborate *technique*, and many of them are of a kind susceptible of ready imitation by the student.

Laboratory work for Senior Students :—

(1) During the first part of the Session there will be a course on Physiological Chemistry, in which the Student will, under direction, investigate food stuffs, digestive action, blood, and the more important secretions and excretions, including urine. All the apparatus and material for this course will be provided.

(2) The remainder of the Session will be devoted to the performance of such experiments as are unsuitable for demonstration to a large class in the lecture room and such as require the use of elaborate methods, apparatus, etc. There will be no extra fee for this part of the course.

HISTOLOGY.

PROFESSOR, GEO. WILKINS.

This will consist of a course of ten lectures and twenty-five weekly demonstrations with the Microscope. As the demonstrations will be chiefly relied upon for teaching the Microscopic Anatomy of the various structures, the specimens under observation will then be minutely described. Plates and diagrams specially prepared for these lectures will be freely made use of.

PHARMACOLOGY AND THERAPEUTICS.

PROFESSOR, A. D. BLACKADER.

The course on this subject comprises :—

I. A description of the Pharmacology and Therapeutics of the more important medicinal agents.

II. The delivery of a weekly lecture ("Clinical Therapeutics") in the theatre of the General Hospital, on some case or groups of cases well adapted for illustrating important points in both general and special Therapeutics. The material for these lectures is abundant, being obtained from both the wards and the out-door clinics.

III. The attendance during the summer session of a course on Practical Materia Medica.

MEDICINE.

PROFESSOR, JAMES STEWART.

While the lectures on this subject are mainly devoted to Special Pathology and Therapeutics, no opportunity is lost of illustrating and explaining the *general laws* of disease. With the exception of certain affections seldom or never observed in this country, all the important internal diseases of the body, except those peculiar to Women and Children, are discussed, and their Pathological Anatomy illustrated by the large collection of morbid preparations in the University Museum, and by fresh specimens contributed by the Demonstrator of Morbid Anatomy.

The College possesses an extensive series of Anatomical plates, illustrative of the Histological and Anatomical appearances of disease, and the wards of the General Hospital afford the lecturer ample opportunities to refer to living examples of very many of the maladies he describes, and to give the results of treatment.

CLINICAL MEDICINE.

PROFESSOR, JAMES STEWART.

Bedside instruction is given in the Medical Wards of the Montreal General and Royal Victoria Hospitals on three days of every week with 3rd year Students,

and three days with those of the 4th year. Accurate reports of all cases are kept by duly appointed clinical clerks, and are systematically read before the class. Instruction is given at the bedside, and every pupil is required to take part in the physical examination of patients. The mode of conducting investigations, the use of the microscope, the value of the thermometer and ophthalmoscope, etc., in medical diagnosis are all explained and illustrated. Senior Students are called upon in rotation to examine new cases before the class, and to be examined thereon as to their general knowledge. In addition, one weekly Clinical Lecture is delivered, bearing upon some case or cases of importance which may happen to be under observation at the time. Special attention is directed to Medical Anatomy, and candidates for the degree will be examined thereon.

SURGERY.

PROFESSOR, THOMAS G. RODDICK.

ASSISTANT PROFESSOR, JAMES BELL.

The first part of this course consists of Surgical Pathology, illustrated by a large collection of preparations from the College Museum, also specimens as they are obtained from cases under observation at the Hospital, and contributed to that collection by the Hospital pathologist and from private sources. The second part of the course is devoted to the practice of Surgery, in which attention is drawn to cases which have been observed by the class during the previous summer session. The various surgical appliances are exhibited, and their uses and application explained. Surgical Anatomy and Operative Surgery form a special department of this course, and Quain's and Maclise's plates are used in illustration.

CLINICAL SURGERY.

PROFESSOR RODDICK.

ASSISTANT PROFESSOR, JAMES BELL.

This course is eminently practical, consisting of bedside instruction and lectures delivered weekly, illustrative of surgical cases actually present in the wards of the General Hospital. The class is separated into junior and senior divisions, which are taken charge of by the Professor on alternate days, when the reports of the Clinical clerks are read and criticized, and fresh cases are examined by the Senior Students. The surgical dressings are, as much as possible, reserved for these occasions, so as to give all present an opportunity of participating in the application of splints to fractures, dressing of wounds, minor operations, etc Major operations are performed in the theatre attached to the Hospital, which is so constructed that the most distant can obtain a fair view of the operations. All the recently invented appliances for the treatment of surgical disease have been introduced into the Hospital.

MIDWIFERY.

PROFESSOR, J. C. CAMERON.

The course will embrace: 1. Lectures on the principles and practice of the obstetric art, illustrated by diagrams, fresh and preserved specimens, the artificial pelvis, complete set of models, illustrating deformities of the pelvis, wax preparations, bronze mechanical pelvis, etc. 2. Bedside instruction in the Montreal Maternity, including the management and after-treatment of cases. 3. A complete course on obstetric operations with the phantom and preserved fœtuses. 4 The Diseases of Infancy. 5. A course of individual clinical instruction at the Montreal Maternity.

Particular attention is given to clinical instruction, and a clinical examination in Midwifery, similar to that held in Medicine and Surgery, now forms part of the final examination.

GYNÆCOLOGY.

PROFESSOR, WM. GARDNER.

The course on this subject will comprise two lectures a week throughout the session. The anatomy and physiology of the parts concerned will be first discussed. Then the various methods of examination will be fully described, the necessary instruments exhibited, and their uses explained. After this, the diseases peculiar to the sex will be considered as fully as time will permit, in the following order:—Disorders of Menstruation; Leucorrhœa, its causes and treatment; Pelvic Cellulitis and Peritonitis; Lacerations of the Cervix Uteri and Perineum; Urinary and Fæcal Fistulæ; Inflammations of the Uterus; Displacements of the Uterus; Tumors of the Uterus; Diseases of the Ovaries.

The lectures will be illustrated as fully as possible by drawings and morbid specimens. The Gynæcological Clinic of the General Hospital furnishes the Professor with ample material to illustrate the subjects considered in the didactic lectures.

Particular attention is given to clinical instruction, and a clinical examination in Gynæcology, similar to that held in Medicine and Surgery, now forms part of the final examination.

MEDICAL JURISPRUDENCE.

PROFESSOR, GEO. WILKINS.

This course includes Insanity, the subject being treated of in its Medical as well as Medico-legal aspects. Special attention is devoted to the subject of blood stains, the Clinical, Microscopic and Spectroscopic tests for which are fully described and shown to the class. The various spectra of blood in its different conditions are shewn by Zeiss' Microspectroscope, so well adapted for showing the

reactions with exceedingly minute quantities of suspected material. Recent researches in the diagnosis of human from animal blood are alluded to. In addition to the other subjects usually included in a course of this kind, Toxicology is taken up. The modes of action of poisons, general evidence of poisoning, and classification of poisons are first treated of, after which the more common poisons are described, with reference to symptoms, post-mortem appearances, and chemical tests. The post-mortem appearances are illustrated by plates, and the tests are shown to the class.

OPHTHALMOLOGY AND OTOLOGY.

PROFESSOR, FRANK BULLER.

Will include a course of lectures on diseases of the Eye and the Ear, both didactic and clinical. In the former, the general principles of diagnosis and treatment will be dealt with, including three lectures on the errors of refraction and faults of accommodation; in the clinical lectures given in the hospital, cases illustrative of the typical form of ordinary diseases of the eye and ear will be exhibited and explained to the class. In the out-patient department of the hospital Students have excellent opportunities of gaining clinical experience.

HYGIENE.

PROFESSOR, ROBERT CRAIK.

Comprises lectures on Drinking Water and Public Water Supplies; conditions of Soil and Water as affecting health, including Drainage and the various methods for the removal of Excreta; the Atmosphere, including Heating and Ventilation; Individual Hygiene, comprising the subjects of Food and Drink; Physical Exercise and Bathing; discussion of the respective merits of the various forms of each, precautions, contra-indications, etc., Village Sanitary Associations; Mutual Protective Sanitary Association for cities.*

BOTANY.†

PROFESSOR, D. P. PENHALLOW.

The purpose of this course is to give Students a good grounding in the principles of General Morphology, and advance their knowledge of the comparative physiology of animals and plants, and enable them to determine readily such species of plants as may come under their observation.

It comprises:—

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*Students may attend the Lectures on Sanitation in the Faculty of Applied Science,—Fee $6.

† Exemptions from Botany in the Matriculation, for Arts Students, do not entitle Students to exemptions in the First Year. Students may take in their first year either Botany or Zoology, subject, however, to the provisions of the law in the Province in which they intend to practise medicine. Students desirous to take both subjects in one year apply to the Faculty for permission.

1. A course of lectures on general Morphology and Classification, Histology and Physiology. The lectures are illustrated by means of the microscope and by the models and large collections in the Peter Redpath Museum.

2. Practical work in the determination and classification of Species, for which the Botanic Gardens of the University offer special facilities.

3. Studies in Canadian Botany. This work is prosecuted by means of field excursions, which are held as often as opportunity is afforded during the autumn months.

4. A special collection of Medicinal plants, now being formed at the Botanic Gardens, offers a valuable preparation to the course in Pharmacology.

PATHOLOGY.

PROFESSOR, J. G. ADAMI.

The following courses constitute the teaching in this subject :—

A. *Obligatory.*

1. A course of General Pathology for Students of the Third Year (optional for those of the Fourth). This course extends from October to March, lectures being delivered thrice weekly.

2. A course of Demonstrations upon the autopsies of the week, with instruction in the performance of autopsies. These demonstrations are held once a week, from October until July. For Students of the Third Year (optional for those of the Fourth).

3. The performance of autopsies. Each student is required to take an active part in at least six autopsies. The autopsies are conducted at the General and Royal Victoria Hospitals by the Pathologist* to these Hospitals and his assistants. In addition to the actual performance of the *sectio cadaveris*, students are expected to attend the practical instruction given in connection with each autopsy, in the method of preparation and microscopic examination of the removed tissues, so as to become proficient in methods of preparation, staining and mounting.

B. *Optional.*

4. A practical course in Morbid Histology for Students of the Third Year. This class is held once a week during the winter months. Six sections are as a rule distributed at each meeting of the class, so that each student obtains a large and representative series of morbid tissues, and upon an average twenty minutes are devoted to the description and examination of each specimen. Fee $4.

5. A course of demonstrations upon Morbid Anatomy (Museum specimens) once weekly during the winter months, for students of the Fourth Year. Free.

6 A course of Bacteriology, with demonstrations, held thrice weekly during the Summer Term. For Students of the final year.

* The Professor of Pathology at the present time occupies this post at both Hospitals.

7. A practical course of clinical microscopy, held thrice weekly during the summer session For Students of the final year.

This course, in addition to instruction in the microscopical study of the fluids of the body, excreta, etc, in diseased conditions, includes instruction in the stains and detection of the commoner pathogenic bacteria. Fee $2.

8. A practical course of Bacteriology for advanced students. Fee $10.

In addition to the above, lectures upon Special Pathology are given by the Professor of Pathology in connection with the courses in Medicine and Surgery.

ZOOLOGY.†

LECTURER, W. E. DEEKS, B.A., M.D.

This course includes a systematic study of the classification of animals, illustrated by Canadian examples and by the collections in the Peter Redpath Museum. It forms a suitable preparation for collecting in any department of Canadian Zoology and Palæontology, and an introduction to Comparative Physiology. It may be taken instead of Botany, or along with it, without any additional fee. Students in Botany or Zoology will receive tickets to the Peter Redpath Museum and to the Museum of the Natural History Society of Montreal.

PRACTICAL MICROSCOPY.

This is an entirely *Optional* Course, and will be conducted by Prof. Wilkins. It is intended especially for teaching the *technique* of Microscopy. Students will be shown how to examine blood, etc., also to cut, stain and mount specimens. Everything except over-glasses and cabinet cases provided. Fee $8.

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§ IV. QUALIFICATIONS FOR THE DEGREE.

The following are Extracts from the Regulations respecting the qualifications of Candidates for the Degree in Medicine :—

1st. No one entering after October 1st, 1884, will be admitted to the Degrees of Doctor of Medicine and Master of Surgery who shall not have attended Lectures for a period of at least four six months' sessions and one three months' summer session* in the University, or some other University, College or School of Medicine approved of by this University ‡

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*Exemptions from Botany in the Matriculation, for Arts Students, do not entitle Students to exemptions in the First Year. Students may take in their first year, either Botany or Zoology, subject, however, to the provisions of the law in the Province in which they intend to practise medicine. Students desirous to take both subjects in one year must apply to the Faculty for permission.

† See under " Botany " supra.

‡ In order to introduce more laboratory teaching instead of didactic lectures, and to increase the personal instruction to students of the first year, those beginning the study of Medicine in October, 1894, will be required to attend an additional summer session of about three months after their first winter session.

2nd. Students of other Universities so approved and admitted on production of certificates to a like standing in the University shall be required to pass the primary and final examinations in the same manner as Students of the Faculty of Medicine of this University. Such Students if entering at the standard of the Primary examination shall pass that examination on entrance at a special examination in October, for which a fee of two dollars for each subject will be charged.

3rd. Candidates for Final Examination shall furnish Testimonials of attendance on the following branches of Medical Education, viz.:—

Provided, however, that Testimonials equivalent though not precisely the same as those above stated may be presented and accepted.

ANATOMY.	Of which two courses will be required of six months' duration.
PRACTICAL ANATOMY.	
PHYSIOLOGY.	
CHEMISTRY.	
MATERIA MEDICA AND THERAPEUTICS.	
PRINCIPLES AND PRACTICE OF SURGERY.	
MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.	
THEORY AND PRACTICE OF MEDICINE.	
CLINICAL MEDICINE.	
CLINICAL SURGERY.	
MEDICAL JURISPRUDENCE.	Of which one Course of Six Months, or two Courses of Three Months will be required.
PRACTICAL CHEMISTRY.	Of which One Course will be required of Three Months' duration.
BOTANY OR ZOOLOGY.	
HYGIENE.	
HISTOLOGY.	Ten Lectures and Twenty-Five Demonstrations.
GENERAL PATHOLOGY.	Twenty-five Lectures.

4th. The Candidate must give proof by ticket of having attended during eighteen months the practice of the Montreal General Hospital, or that of some other Hospital approved of by this University, and of having compounded medicines for six months. He must also give proof of having acted as clinical clerk for six months in the wards of a general Hospital recognized by the Faculty.

5th. He must also give proof of having assisted at six autopsies.

6th. He must also give proof by ticket of having attended for at least six months the practice of the Montreal Maternity or other Lying-in-Hospital approved of by this University, and of having attended at least six cases of labor.

7th. No one will be permitted to become a candidate for the final or degree examination who shall not have attended at least one winter and one summer Session of this University.

8th. Courses of less length than the above will only be received for the time (or) which they have extended

9th. Students, except by special permission of the Faculty, must pursue the subjects of Anatomy, Chemistry, Histology and Botany in their first session, and are advised to take Physiology in addition.

10th. Candidates who fail to present themselves for to pass in any of the subjects of the first two years will be granted a supplemental examination at the beginning of the following session.

11th. Supplemental examinations will not be granted except by special permission of the Faculty, and on written application stating reasons, and accompanied by a fee of $5 for each examination.

12th. No Candidate will be permitted to proceed with the work of the final year until he has passed all the subjects comprised in the Primary Examination.

13th. Candidates who fail to pass in a subject of which two courses are required may, at the discretion of the Faculty, be required to attend a third course, and furnish a certificate of attendance thereon.

A course in Practical Anatomy will be accepted as equivalent to a third course of lectures in General and Descriptive Anatomy.

14th. The requirements for the summer session, when as at present taken after the third winter session, shall be:—

(*a*) Daily Hospital attendance;

(*b*) Maternity attendance; and

(*c*) Any two weekly clinics, in addition to the clinics in General Medicine and Surgery.

15th. Every Candidate for the Degree must, on or before the first day of March, present to the Regi trar of the Medical Faculty testimonials of his qualifications, entitling him to an examination, and must at the same time deliver to the Registrar of the Faculty the following Certificate:—

MONTREAL,——18—

I, the undersigned, being desirous of obtaining the Degree of Doctor of Medicine and Master of Surgery, do hereby declare that I have attained the age of twenty-one years, or (if the case be otherwise) that I shall have attained the age of twenty-one years before the next graduation day, and that I am not [or shall not be at that time] under articles as a pupil or apprentice to any Physician, Surgeon, or Apothecary.

(Signed,) A. B.

16th. The trials to be undergone by the Candidate shall be such as are referred to under Section V.

17. The following Oath or Affirmation will be exacted from the Candidate before receiving his degree:—

SPONSIO ACADEMICA.

In Facultate Medicinæ Universitatis.

Ego, A——B——, Doctoratus in Arte Medica, titulo jam donandus, sancto coram Deo cordium scrutatore, spondeo: me in omnibus grati animi officiis erga hanc Universitatem, ad extremum vitæ halitum, perseveraturum: tum porro artem medicam caute,

caste, et probe exercitaturum ; et quoad in me est, omnia ad ægrotorum corpurum salutem conducentia, cum fide procuraturum ; quæ denique, inter medendum, visa vel audita silere conveniat, non sine gravi causa vulgaturum. Ita præsens mihi spondenti adsit Numen.

18th. The fee for the Degree of Doctor of Medicine and Master of Surgery shall be thirty dollars, to be paid by the successful Candidate immediately after examination.

§ V. EXAMINATIONS.

Weekly examinations are held, to test the progress of the Student ; and in addition two or three written examinations are given throughout the Session.

The examinations at the close of each Session are arranged as follows :—

First Year.

Pass Examination in Botany or Zoology, Histology and Visceral Anatomy.

Sessional Examination in Anatomy, Chemistry and Physiology.

A due proportion of marks will be allowed for the Sessional Examination in each subject, which marks shall be reckoned in the ranking of the Candidate after the examination of the following year.

Second Year.

Pass Examination in Anatomy, Chemistry, Practical Chemistry, Physiology and Histology.

Sessional Examination in Pharmacology and Therapeutics.

One hundred marks will be allowed for the Sessional Examination, which marks shall be reckoned in the ranking of the Candidate after the examination of the following year.

Third Year.

Pass Examination in Pharmacology and Therapeutics, Medical Jurisprudence, Hygiene* and General Pathology.

Fourth Year.

Pass Examination in Medicine, Surgery, Obstetrics, Gynæcology, Clinical Medicine, Clinical Surgery and Clinical Obstetrics, Clinical Gynæcology, Practical Pathology.

By means of the above arrangement a certain definite amount of work must be accomplished in each year, and an equitable division is made between the Primary and Final branches.

With regard to the Primary Examination at the end of the second year, it remains optional with the Student whether he passes in all the branches or leaves two for the third year. In any case, Chemistry and Anatomy must be taken at the close of the second year, except it be otherwise agreed to by the Faculty.

* The examinations in Hygiene are held at the close of the summer session.

§ VI. MEDAL AND PRIZES.

1. The Holmes Gold Medal, awarded to the Student of the graduating class who receives the highest aggregate number of marks for the best examinations, written and oral, in both Primary and Final branches.

The Student who gains the Holmes Medal has the option of exchanging it for a Bronze Medal, and the money equivalent of the Gold Medal.

2nd. A Prize in Books awarded for the best examination, written and oral, in the Final branches. The gold medallist is not permitted to compete for this prize.

3rd. A Prize in Books awarded for the best examination, written and oral, in the Primary branches.

4th. The Sutherland Gold Medal, awarded for the best examination in Theoretical and Practical Chemistry, together with creditable examination in the Primary branches.

5th. A Prize in Books for the best examination in Practical Anatomy.

6th. Prizes in Botany and Zoology.

A Prize in Books for the best examination.

7th. The Clemesha Prize in Clinical Therapeutics, books to the value of $25.

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§ VII. FEES.

The total collegiate fees for all Students entering on and after the 1st of October, 1890, will be four hundred dollars, to be paid in four annual instalments of one hundred dollars each. The above sum represents the tuition for four winter and one summer sessions. Additional summer sessions may be attended on payment of the registration fee, $5.00. (For graduation fee, see § IV, clause 16, supra).

All fees are payable in advance to the Registrar, and, except by permission of the Faculty, will not be received later than 1st November.

It is suggested to parents or guardians of Students that the fees be transmitted direct by cheque or P.O. Order to the Registrar, who will furnish official receipts.

§ VIII. TEXT-BOOKS.

(*Prices current in Montreal.*)

ANATOMY.—Gray, Wilson, Quain (Eng. ed.).

PRACTICAL ANATOMY.—Heath's Dissector, Holden's Dissector, and Landmark's Ellis' Demonstrations.

PHYSICS.—Balfour, Stewart.

INORGANIC CHEMISTRY.—Wurtz's Elementary Chemistry, Remsen's Text-Book.

ORGANIC CHEMISTRY.—Remsen.

PRACTICAL CHEMISTRY.—Odling, Galloway, Fresenius.

PHARMACOLOGY and THERAPEUTICS.—Wood, Hare, Edes, Bruce.

PHYSIOLOGY.—Huxley's *Elementary Lessons*, Foster, Prof. Mills' Text-Book of Physiology and Outlines of Lectures.

PATHOLOGY.—Delafield and Prudden.

HISTOLOGY.—Klein's Elements, Schafer's Essentials of Histology.

SURGERY.—Holmes' Surgery (Eng. Ed.), Erichsen, Druitt, Bryant, Treves and the American System of Surgery.

PRACTICE OF MEDICINE.—Flint, Roberts, Bristowe, DaCosta, Fagge, Osler.

FOR REFERENCE.—Pepper's System of Medicine.

CLINICAL MEDICINE.—Finlayson's Clinical Manual, Fenwick on Medical Diagnosis, Warner on Medical Case Taking.

MEDICAL JURISPRUDENCE.—Husband, Guy and Ferrier, Reese.

MIDWIFERY.—Lusk, Galabin.

DISEASES OF CHILDREN.—Smith, Goodhart and Starr.

GYNÆCOLOGY.—Thomas and Munde, Skeene, Thurburn, Goodell's Lessons.

HYGIENE.—Parks, Wilson (Eng. ed.).

BOTANY.—Gray's Text-Book of Histology and Physiology.

ZOOLOGY.—Dawson's Handbook of Canadian Zoology.

§ IX. MUSEUM.

For the past fifty years the rich Pathological material furnished by the Montreal General Hospital has been collected here. The Faculty are also greatly indebted to many medical men throughout different parts of the world for important contributions to the Museum.

During the past few years, numerous and extremely important additions have been made to the Medical Museum. (See special Announcement of the Faculty of Medicine.)

It is particularly rich in specimens of Aneurisms. In addition to containing a large number of the more common varieties of these formations, there are specimens of such rare conditions as Aneurism of the Hepatic and Superior Mesenteric Arteries, Traumatic Aneurism of the Vertebral, together with several of the Cerebral and Pulmonary Arteries. The most important collection probably in existence, of hearts affected with "Malignant Endocarditis," is also found. The Faculty are indebted to Prof. Osler, late of this University, for this collection.

Obstetrical Department of the Museum.

Besides the ordinary pathological preparations, dry and moist, usually found in Museums, this department contains a complete set of models of deformed pelves, a series of preparations in wax illustrating the normal relations of the pelvic organs, the development of the uterus and its contents during pregnancy, various abnormalities, twin pregnancy, fœtal circulation, etc., a series of colored casts of frozen sections, Tarnier's artificial pelvis, Budin's bronze mechanical pelvis, models of obstetrical instruments, etc.

Additions are being constantly made, and ere long the department will possess a complete collection of models, casts, preparations and apparatus for the practical teaching and illustration of Obstetrics.

Anatomical Museum.

In addition to the already large collection of normal and abnormal osteology, comparative and human skeletons of various classes of animals, moist preparations and frozen sections, the following preparations have been recently obtained:

(1) A series of articulated skeletons of fore and hind limbs of the various domestic animals prepared by the articulator, Mr. Bailly.

(2) Numerous moist preparations presented by the Professor and Demonstrator of Anatomy.

(3) A complete set of Steger's beautiful colored casts, taken from the celebrated frozen sections of Professors His and Braune of Leipzig. These preparations have been placed in the Museum so that they can be constantly consulted by the Students.

(4) (*a*) A complete set of Steger's brain sections ;

(*b*) Set of hardened brains with the various lobes, convolutions, ganglia, etc., in different colors ;

(*c*) Models of the cerebro-spinal and sympathetic nervou system.

§ X. LIBRARY.

The Library of the Medical Faculty now comprises upwards of thirteen thousand volumes, the largest special library connected with any medical school on this continent.

The standard text-books and works of reference, together with complete files of the leading periodicals, are on the shelves. Students may obtain books on making a deposit of $5, which is refunded on returning the volumes.

The Medical Faculty have great pleasure in acknowledging the following large additions to this library :

(1) The library of the late Dean, Prof. R. P. Howard.

(2) The Gadsdsen library of Comparative Medicine.

(3) The library of the late Dr. Godfrey.

(4) The library of the late Prof. Richard L. Macdonell.

(5) The library of the late Prof. George Ross.

§ XI. McGILL MEDICAL SOCIETY.

This Society, composed of enregistered Students of the Faculty, meets once a week during the Summer Session, and fortnightly during the Winter, for the reading of papers and the discussion of medical subjects. It is presided over by a physician chosen by the members.

A reading room has been established in connection with the Society, in which the leading English and American Medical journals are on file.

The leading daily and weekly newspapers of the Dominion are also kept on file.

§ XII. COST OF LIVING, ETC.

This will, of course, vary with the taste and habits of the Student, but the necessary expenses need not exceed those in smaller towns. Good board may be obtained from $15 to $20 per month. A list of boarding houses is prepared annually by the Secretary of the University, and may be procured from the Janitor at the Medical College.

§ XIII. HOSPITALS.

The city of Montreal is celebrated for the number and importance of its public charities. Among these its public hospitals are the most prominent and widely known. Those in which Medical students of McGill University will receive clinical instruction are: —1. The Montreal General Hospital; 2. The Royal Victoria Hospital; 3. The Montreal Maternity Hospital; 4. The Montreal Dispensary. The Montreal General Hospital has for many years been the most extensive clinical field in Canada. The old buildings, proving inadequate to meet the increased demand for hospital accommodation, have this year been about doubled in size by the addition of the Campbell Memorial and Greenshields pavilions and the new surgical amphitheatre.

The Royal Victoria Hospital, at the head of University street, will be opened for the reception of patients during the coming session, and will afford exceptional opportunities for clinical instruction and practical training.

Montreal General Hospital.

During the past year this hospital has been enlarged by the addition of two new Surgical Pavilions containing over 100 beds.

Attached to these wings is a large building containing a surgical amphitheatre furnished with all the modern appliances for the carrying out of aseptic methods. This amphitheatre has a seating capacity of over 300.

Besides the amphitheatre and its adjoining rooms for etherizing, for instruments and for the preparation of surgical dressings, there are on the same flat smaller operating rooms and isolation wards; the storey below is chiefly set apart for laboratories for clinical chemistry, bacteriology and general pathological work.

A much larger number of in-door and out-door patients receive treatment in the Montreal General Hospital than in any other Canadian hospital. Last year's report shows that between two and three thousand medical and surgical cases were treated in the wards, and the greater part of these were acute cases, as may be gathered from the fact that the average duration of residence was only 23, 34 days.

The large number of out-door patients that are treated in the Hospital—upwards of 38,000 annually—supply illustrations of most of the diseases of infants and children, of very many of the eye and skin, and of those chronic and ill-defined ailments which, as they do not require admission to the wards of a hospital, would not otherwise come under the observation of the Student.

The large number of patients affected with diseases of the eye and ear, now attending the out-door department, will afford Students ample opportunity to become familiar with all the ordinary affections of those organs, and to make themselves proficient in the use of the ophthalmoscope, and it is hoped that every Student will thus seek to gain a practical knowledge of this important branch of Medicine and Surgery. Operations are performed on the eye by the Ophthalmic Surgeon after the out-door patients have been seen, and Students are invited to attend the same, and, as far as practicable, to keep such cases under observation so long as they remain in the Hospital.

There are now special departments in the Hospital for Gynæcology and Laryngology, presided over by specialists in these branches. Students are thus enabled to acquire special technical knowledge under skilled direction. The plan of teaching practical gynæcology for the past five years with marked success has been the limitation of the number of Students to two or three, who, in rotation, assist at the examinations and receive instruction in the diagnosis and treatment of uterine diseases and the use of gynæcological instruments.

Recently two additional special clinics have been instituted in connection with the out-door department : one for diseases of children and the other for diseases of the nervous system.

Clinical Clerks in both medical and surgical wards are appointed every three months, and each one during his term of service conducts, under the immediate direction of the clinical professors, the reporting of all cases in the ward allotted him. Students entering on and after October next will be required to show a certificate of having acted for six months as clinical clerk in medicine or surgery. The holding of one of these offices is found to be of the greatest possible advantage to the student as affording a true *practical* training for his future professional life. They will be awarded on

application at the end of each Session to final Students of that year, in order of their standing in the primary examination.

DRESSERS are also appointed to the Out-door Department. For these appointments, application is to be made to the Assistant Surgeons or to the Resident Surgeon in charge of the out-patients' department.

Sessional Tickets entitling Students to admission to the Hospital must be taken out at the commencement of each session ; price $8. Perpetual tickets, if taken out at the beginning of the first session of the Hospital attendance, will cost $20 ; if otherwise, *i.e.*, if not paid for until a later date, $24 will be charged.

The Royal Victoria Hospital.

This Hospital is situated a short distance above the University grounds, on the side of the mountain, and overlooks the city. It was founded in July, 1887, by the munificence of Lord Mount-Stephen and Sir Donald Smith, who gave half a million dollars each for this purpose, and have since endowed it with one million dollars in addition.

The buildings, which are now complete, were designed by Mr. Saxon Snell of London, England, to accommodate 250 patients.

The Hospital is composed of three massive buildings connected together by stone bridges, an administration block in the centre, a wing on the east side for medical patients, and a wing on the west side for surgical patients.

The administration block contains ample accommodation for the resident medical staff, the nursing staff and domestics. The patients' entrance, the dispensary and admission rooms are also situated in this building.

The Medical wing contains three large wards, each 123 feet long by 26 feet 6 inches wide, one ward 40 feet by 26 feet 6 inches, and twenty-one private and isolation wards averaging 16 feet by 12 feet, also a Medical Theatre with a seating capacity for 250, and rooms adjacent to it for Clinical Chemistry and other purposes.

The Surgical wing contains three large wards each 122 feet long by 26 feet 6 inches wide, four wards each 40 feet by 32 feet, and sixteen private and isolation wards averaging 16 feet by 12 feet ; also a Surgical Theatre with a seating capacity for 250, with six accessory rooms adjacent for preparation and after-recovery purposes.

Arrangements for the reception of Students and regulations as to Hospital fees, etc., will be announced at the opening of the next session.

Montreal Dispensary,—St. Antoine Street.

Over 12,000 patients yearly are treated at this Institution. The cases are of great variety, comprising a large number of pulmonary affections and children's diseases. Minor operations are of daily occurrence, and excellent practice is afforded in the application of splints and bandages. The attending physicians furnish Students with all possible facilities. The hours of attendance are from 12 to 2 daily during the winter session and from 4 to 6 p.m. during the summer session.

The Montreal Maternity.

The Faculty have great pleasure in announcing that the Corporation of the Montreal Maternity have recently made very important additions to their building, and have still further improvements in contemplation. Students will therefore have greatly increased facilities for obtaining a practical knowledge of obstetrics. An improved Tarnier-Budin phantom is provided for the use of the Students, and every facility afforded for acquiring a practical knowledge of the various obstetric manipulations. The institution is under the direct supervision of the Professor of Midwifery, who devotes much time and attention to individual instruction. Students who have attended one course of lectures are furnished with cases in rotation, which they are required to report and attend till convalescence. Clinical midwifery has been placed upon the same basis as Clinical Medicine and Surgery, and a final Clinical examination instituted. Regular courses of Clinical Lectures are given throughout the summer and winter sessions. Students will find it very much to their advantage to pay special attention to their Clinical work during the Summer Session. Though only six cases are required to qualify for the license of the Ontario and Quebec Medical Boards, twenty cases are demanded by the licensing bodies of Great Britain. A sufficient number of cases will be assigned to Students who contemplate presenting themselves for British qualifications. Two resident accoucheurs are appointed

yearly from the graduating class, to hold office for a period of six months each. By an arrangement with the authorities of the Montreal General Hospital one of the residents acts as Clinical assistant to the Gynæcologists for a period of six months, a change which has greatly enhanced the value of this appointment.

Fee for twelve months, $12.00.

§ XIV. STUDENTS' APPOINTMENTS.

General Hospital—Five Resident Medical Officers.
Clinical Clerk, Gynæcology,
" " Laryngology.
" " Diseases of Children.
" " Dermatology,
" " Diseases of Nervous System.
University Maternity—Two Resident Medical Officers.
Out-Door Dressers.
Dressers in Eye and Ear Department.
Surgical Dressers (in-door).
Medical Clinical Clerks.
Post-mortem Clerks.
Student Demonstrators of Anatomy, 4 third-year Students.
Prosectors to Chair of Anatomy, 2.
Assistants in Practical Histology Course, 2.
Assistants in Practical Physiology Course, 4.
Assistants in Practical Chemistry, 4.

§ XV. RULES FOR STUDENTS.

1. In the case of disorderly conduct, any Student may, at the discretion of the Professor, be required to leave the Class-room. Persistence in any offence against discipline after admonition by the Professor shall be reported to the Dean of the Faculty. The Dean may, at his discretion, reprimand the Student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from classes.

2. Absence from any number of lectures can only be excused by necessity or duty, of which proof must be given, when called for, to the Faculty. The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a Session shall in each case be determined by the Faculty.

3. While in the College, Students are expected to conduct themselves in the same orderly manner as in the Class-room.

When Students are brought before the Faculty under the above rules, the Faculty may reprimand, impose fines, disqualify from competing for prizes and honors, suspend from Classes, or report to the Corporation for expulsion.

TIME TABLE—FIRST AND SECOND YEARS, FOR PAST SESSION (1892-93).†

A.M.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
9	Anatomy Examination.	Anatomy.	Anatomy.	Anatomy.	Anatomy.	Practical Chemistry,
10	* Practical Chemistry, 2nd Year, till 12 o'clock.	Practical Chemistry, Botany, 1st Year.	Practical Chemistry, 2nd Year.	Practical Chemistry, Botany, 1st Year.	Practical Chemistry, 2nd Year.	Histology Demonstration.
11	Out-Patients, Montreal Gen'l. Hospital.	Out-Patients, Montreal Gen'l. Hospital. Zoology.	Out-Patients, Montreal Gen'l. Hospital.	Out-Patients, Montreal Gen'l. Hospital.	Out-Patients, Montreal Gen'l. Hospital. Zoology.	Practical Physiology, Out-Patients, Montreal Gen'l. Hospital.
P.M. 2	Physiology Examination, 2nd Year.	Physiology, 2nd Year.	Physiology, 2nd Year.	Physiology, 2nd Year.	Prac. Physiology.	
3	Chemistry Examination.	Chemistry.	Chemistry.	Chemistry.	Chemistry.	
4	Materia Medica Examination. Physiology, 1st Year.	Materia Medica, Physiology, 1st Year.	Therapeutics, Physiology, 1st Year.	Materia Medica, Physiology, 1st Year.	Materia Medica, Histology Lectures, 1st Year.	
4 to 6		Practical Histology.		Practical Histology.		
A.M. 10 to 12	Practical Anatomy.	Practical Anatomy.	Practical Anatomy.	Practical Anatomy.	Practical Anatomy.	Practical Anatomy.

N.B.—The Demonstrator's Hours in the Dissecting Room from 10–12 a.m., and from 8–10 p.m. * Until Christmas only.
† Corrections for 1893-94 will be announced at the opening of the session.

TIME TABLE—THIRD AND FOURTH YEARS, FOR THE PAST SESSION (1892–93).*

A.M.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
9	Midwifery.	Midwifery.	Gynæcology.	Midwifery.	Gynæcology.	
10	Jurisprudence.	Pathology.	Jurisprudence.		Jurisprudence.	
A.M. 11.15	Medical Clinic, 4th Year.	Medical Clinic, 3rd Year.	Medical Clinic, 3rd and 4th Years.	Clinical Therapeutics.	Medical Clinic, 4th Year.	Medical Clinic, 3rd Year.
1	Surgical Clinic, (3)	Surgical Clinic, (4)		Surgical Clinic, (4)	Surgical Clinic, (3)	Surgical Clinic, (4)
2						
3	Materia Medica.	Materia Medica.	Therapeutics.	Ophthalmic Clinic †	Materia Medica.	
4	Medicine.	Medicine.	Medicine.	Medicine.	Medicine.	
5	Surgery.	Midwifery, 3rd year.	Surgery.	Surgery.	Surgery.	

Autopsies are performed at the General Hospital between 12 a. m. and 2 p.m. † 4th year.
* Corrections for 1893-94 will be announced at the opening of the session.

Faculty of Law.

THE PRINCIPAL (Ex-Officio).
N. W. TRENHOLME, Q.C., M.A., D.C.L., Dean, and GALE Professor of Roman and International Law.
Honourable Mr. JUSTICE WURTELE, D.C.L., Professor of the Law of Real Estate.
J. S. ARCHIBALD, Q.C., D.C.L, Professor of Commercial Law.
L. H. DAVIDSON, Q.C., M.A., D.C.L., Professor of Commercial Law.
CHRISTOPHE A. GEOFFRION, Q.C., D.C.L., Professor of the Law of Contracts.
ARCHIBALD McGOUN, M.A., B.C.L., Professor of Legal Bibliography.
THOMAS FORTIN, LL.L., B.C.L., Professor of Civil Procedure and Municipal Law.
W. DEM. MARLER, B.A., B.C.L., Professor of Notarial Law.
Honourable C. J. DOHERTY, D.C.L., Professor of Civil Law.
HARRY ABBOTT, Q.C., B.C.L., Professor of Commercial Law.
EUGENE LAFLEUR, B.A., B.C.L., Professor of Civil Law.

Dean of Faculty.—Professor TRENHOLME.

Secretary and Librarian of the Faculty.—Professor McGOUN.

Corporation Examiners for Degrees.—Professors TRENHOLME and FORTIN.

Matriculation Examiners of the Faculty.—Professors ARCHIBALD and LAFLEUR.

The Faculty of Law feels much satisfaction in being able to announce that the important step, so long and earnestly desired by all friends of the University, of placing the McGill School of Law on such a substantial and permanent basis as to enable it efficiently to perform its part in the great work of legal education in Canada, has been accomplished by the munificent endowment presented to the University by Mr. William C. McDonald. This endowment places the Faculty in a position to offer to those who desire to study the Law, either with a view to its practice as a profession or as a means of culture, or as a qualification for the discharge of the higher duties of citizenship, a comprehensive and complete course of legal study, with the use of library, reading room and other aids which have not heretofore been at the command of the Faculty. The course of study to be pursued, extending over a period of three years, and the instruction to be imparted, while designed so far as possible to qualify professional Students for the practice of their profession,

will also fully recognize the important fact, which, no doubt, was a main inducement for the action of the Faculty's generous benefactor, that upon the character of the Bar depends that of the Bench and of the administration of justice, and to a great extent also the character of the public men and public life of the country; that, in fact, from the ranks of no other profession are so many called to fill high positions of trust and to perform duties, the efficient and upright discharge of which is of vital importance to the community.

In re-organizing the Faculty, under the W. C. McDonald endowment, a number of well-known names have been added to the staff, as shown above, and the courses largely specialized. It was felt, that while professional men, engaged in the active practice of their profession, might be relied upon to deliver regularly a limited number of lectures, on special subjects, they could not be expected to undertake to submit to the serious interference with their business and inevitable interruptions involved in very lengthy courses. And to obviate the difficulties and drawbacks necessarily arising from sole dependence, as heretofore, on professional men in active practice, for attending to the interests and maintaining the efficiency of the Faculty, and to meet a deeply-felt want in this respect, the Dean has been appointed as a salaried officer, whose duty it will be primarily to devote his whole time to the work.

Further, the Professor of Legal Bibliography has been appointed secretary and librarian, and will have supervision of the Library,—comprising at present the law libraries of the late Mr. Griffin, Q.C., of the late Chancellor Day, and of part of the library of the late Mr. Justice McKay, all of which were bequeathed to the University; and also of the law library of the late Mr. Justice Torrance, now the property of the Fraser Institute, of which he was a trustee—the use of which has been generously granted to the Faculty by the present trustees. The above law books will of themselves afford to the law student a library which will generally prove sufficient for his wants, and which will be kept up and added to by the expenditure of a sum annually in the purchase of books. There will also be provided in connection therewith a reading room, in which the leading law magazines and literature of the day will be found.

As a place for the study of Law by professional Students, Montreal affords undoubted advantages, among other reasons, on account

of the great variety and extent of the legal business done there, the constant sitting of all the principal courts of the Province, and the large number of first-class law offices open to Students; while for all students, and especially for students of historic and philosophic jurisprudence, no more interesting or attractive legal system exists than that prevailing in this Province, where may be daily seen and studied, not simply theoretically, but in active operation as parts of our law, the three famous systems of jurisprudence,—Roman, French and English,—with additions and modifications introduced by our own legislatures and courts. The imposing features of the Roman Law may be recognized throughout the greater portion of our Civil Code, often combined with or incorporated into that noble system elaborated and perfected by Pothier and other great French jurists, both of the ancient and modern epochs, which is the direct source of most of our Civil Law; while nearly the whole body of English Criminal and Constitutional Law and large portions of English Commercial Law are equally parts of the law of this Province.

The importance of the Notarial profession, and of a knowledge of notarial practice and conveyancing, has led to the appointment as a full member of the Faculty of a Professor of Notarial Law, whose course of lectures will be attended by all professional Students.

With a view to extending as far as possible the usefulness of the Faculty, the courses of lectures on commercial subjects have been so arranged, that young men engaged in banks or other business houses can attend them without interference with their regular duties. Students of other departments of the University, and, in fact, all who may desire to do so, may attend such particular courses as they may see fit to select. It is hoped that the courses delivered will be found beneficial to all students, indeed to all who may desire to know something of the constitution and laws by which they are governed, and of a science which has been characterized by Burke as "the collected reason of ages, combining the principles of original justice with the infinite variety of human concerns."

While the Faculty accepts for matriculation the requirements stated in the Regulations below, it nevertheless strongly recommends Students intending to study law to take the B.A. course in the Faculty of Arts as a preliminary qualification; and if that be not attainable, as much as possible of the Arts course.

Lectures and Examinations.

The classes in Law will begin in the Faculty Rooms, Fraser Institute, on Monday, the 4th September, 1893.

The Supplemental and Matriculation Examinations will be held in the Faculty Rooms, Fraser Institute, on Friday, 1st September, at 4 p.m.

The lectures will be delivered in the Faculty Rooms in two terms: the first beginning on Monday, 4th September, 1893, and the second beginning on Thursday, 4th January, 1894.

The Examinations will be held in the William Molson Hall, McGill College building, at Christmas, and at the close of the session, and as announced below, unless otherwise determined by the Faculty.

The complete course of study in this Faculty extends over three years. Attendance at lectures is required of all students proceeding to the degree of B.C.L.

Professors Fortin and Lafleur will deliver their lectures in French.

Scholarships and Prizes.

Two scholarships, each of one hundred dollars, are offered for competition, the preference being given to Students whose domicile is not in Montreal or vicinity. They will be awarded, after the Sessional Examinations in April, 1894, upon the results of the Examinations of the first year, and will be payable during the second year.

Prizes open to competition by all the Students except the medalist and holders of scholarships will also be given to the Students taking the best standing in each year.

No scholarship or prize shall, however, be awarded to any Student unless a sufficiently high standing, in the estimation of the Faculty, be attained, to merit it.

Classification of Students.

Matriculated Students who do not take the whole course are classed as Partial Students, and are not entitled to proceed to the Degree of B.C.L.

Occasional Students will be received without matriculation for attendance on any particular series of Lectures.

Students who have completed their course of three years, and have passed a satisfactory examination, will be entitled, upon the certificate and recommendation of the Faculty, to the Degree of Bachelor of Civil Law.

COURSE OF STUDY FOR 1893-94

Roman Law:

1st Year.
History of Roman Law
Maine, Ancient Law, cap. I. to IV.
Institutes of Justinian, Bk. I.
Gaius, Commentaries, I.
2nd and 3rd Years.
Institutes of Justinian, Bk. II. et seq.
Gaius, Commentaries, III. et seq.
Maine, Ancient Law, cap. IV. et seq. — The DEAN.

Criminal Law
International Law — The DEAN.

Law of Real Estate:

History and nature of various kinds of tenure of real property in the Province, and their incidents. — Professor WURTELE.

Commercial Law:

Law of Sales, including Commercial Sales. — Professor ARCHIBALD.

Commercial Law:

Law of Agency
Law of Partnership — Professor DAVIDSON.

Law of Contracts — Professor GEOFFRION.

Legal Bibliography and History:

Sources of our Law: Customary Law of France, Royal Edicts and Ordinances, with jurisprudence of Parliament of Paris; Imperial Statutes and English laws in force here; Legislation within the Province — Professor MCGOUN.

Civil Procedure:

Jurisdiction of the civil courts
General Rules of Pleading
Code of Procedure — Professor FORTIN.

Notarial Law:

Notarial Practice and Conveyancing — Professor MARLER.

Civil Law:

Law of Successions
Forced licitations — Professor DOHERTY.

Commercial Law:

Law of Banking
Documents of Title
Railway Law — Professor ABBOTT.

Civil Law:

Law of persons and domestic relations
Civil Code, from art. 18. — Professor LAFLEUR.

FACULTY REGULATIONS.

1. Any person desirous of becoming a Matriculated Student may apply to the Secretary, Prof. McGoun, 181 St. James st., for examination and entry in the Register of Matriculation, and shall procure a ticket of Matriculation and tickets of admission to the Lectures for each Session of the Course.

2. The degree of B.A. obtained from any Canadian or other British University; or a certificate of having passed the examination before the Bar for admission to study Law in the Province of Quebec; or the Intermediate Examination in the Faculty of Arts in McGill University, shall be accepted in lieu of Examination for Matriculation in this Faculty. For other candidates the Matriculation Examination this year will be in the following subjects:—

Latin.—Virgil, Æneid, Book I.; Cicero, Orations I. and II. against Catiline. Latin Grammar.

French.—De Fivas' "Grammaire des Grammaires;" *Molière, "Le Bourgeois Gentilhomme;" † Translation into French of Macaulay's Essay on Frederick the Great.

Exercises in Composition and Grammatical Analysis, in English and French.

Mathematics.—Arithmetic; Algebra to the end of Simple Equations; Euclid, Books I., II., III.

Philosophy.—* Whately's Logic; † Logique de Port Royal; † Cousin, Histoire de la Philosophie; * Stewart's Outline of Moral Philosophy.

N.B.—The works mentioned above preceded by an asterisk are for English Students only. Those preceded by a cross are for French Students only. The remainder are for both English and French.

3. Students in Law shall be known as of the First, Second and Third Years, and shall be so graded by the Faculty. In each year, Students shall take the studies fixed for that year, and those only, unless by special permission of the Faculty.

4. The register of Matriculation shall be closed on the 1st November in each year, and return thereof shall be immediately made by the Dean to the Registrar of the University. Candidates applying thereafter may be admitted on a special examination to be determined by the Faculty; and, if admitted, their names shall be returned in a supplementary list to the Registrar.

5. Persons desirous of entering as Occasional Students shall apply to the Dean of the Faculty for admission as such Students, and shall obtain a ticket or tickets for the class or classes they desire to attend.

6. Students who have attended collegiate courses of legal study in other Universities, for a number of terms or sessions, may be admitted, on the production of certificates, to a like standing in this University, after examination by the Faculty.

7. All Students shall be subject to the following regulations for attendance and conduct:

(1) A class-book shall be kept by each Professor and Lecturer, in which the presence or absence of Students shall be carefully noted, and the said class-book shall be submitted to the Faculty at each monthly meeting; and the Faculty shall, after examination of such class-book, decide which Students shall be deemed to have been sufficiently regular in their attendance to entitle them to proceed to the examination in the respective classes.

(2) Punctual attendance on all the classes proper to his year is required of each Student. Professors will note the attendance immediately on the commencement of their lectures, and will omit the names of Students entering thereafter, unless satisfactory reasons are assigned. Absence or tardiness, without sufficient excuse, or inattention or disorder in the Class room, if persisted in after admonition by the Professor, will be reported to the Dean of the Faculty, who may reprimand the Student or report to the Faculty, as he may decide. While in the building, or going to and from it, Students are expected to conduct themselves in the same orderly manner as in the Class rooms. Any Professor observing improper conduct in the Class rooms, or elsewhere in the building, will admonish the Student, and, if necessary, report him to the Dean.

(3) When Students are reported to the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, disqualify from competing for prizes or honors, suspend from classes, or report to the Corporation for expulsion.

(4) Any Student injuring the furniture or building will be required to repair the same at his own expenses, and will, in addition, be subject to such penalty as the Faculty may see fit to impose.

(5) The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a Session, shall in each case be determined by the Faculty.

(6) All cases of discipline involving the interests of more than one Faculty, or of the University generally, shall be reported to the Principal, or, in his absence, to the Vice-Principal.

8. The College year shall be divided into two terms, the first extending to the Christmas vacation, and the second from the expiration of the Christmas vacation to the end of April following.

The lectures will be delivered between the hours of half-past eight and half-past nine in the morning and four and half-past six in the afternoon, and special lectures in the evening; the whole at such hours and in such order as shall be determined by the Faculty. Professors shall have the right to substitute an examination for any such lecture.

9. At the end of each term there shall be a general examination of all the classes, under the superintendence of the Professors, and of such other examiners as may be appointed by the Corporation; which examination shall be conducted by means of printed questions, answered by the Students in writing in the presence of the Examiners. The result shall be reported as early as possible to the Faculty.

After the examinations at the close of the second term, the Faculty shall decide the general standing of the Students, taking into consideration the examinations of both terms, both of which examinations shall be considered the Sessional or Final Examinations for the college year, as the case may be.

10. No Student shall be considered as having kept a Session unless he shall have attended regularly all the courses of Lectures, and shall have passed the Sessional Examinations to the satisfaction of the Faculty in all the classes of his year.

11. The Faculty shall have the power, upon special and sufficient cause shown, to grant a dispensation to any Student from attendance on any particular Course or Courses of Lectures, but no distinction shall in consequence be made between the Examinations of such Students and those of the Students regularly attending Lectures. No Student shall pass the degree of B.C.L. unless he has prepared a Thesis, either in French or English, which shall have been approved by the Faculty.

12. The subject of such Thesis shall be left to the choice of the Student, but it must fall within the range of study of the Faculty, and shall not exceed twenty pages of thirty lines each. Each Student shall, on or before the first day of March, forward such Thesis to the Secretary of the Faculty, marked with the *nom de plume* which he shall adopt, and accompanied with a sealed envelope, bearing the same *nom de plume* on it, and containing inside his name and the subject of his Thesis, and the envelope shall be opened in presence of the Faculty after the final decision shall be given on the respective merits of the several Theses.

13. The Elizabeth Torrance Gold Medal, in the Faculty of Law, shall be awarded to the Student who, being of the Graduating Class, having passed the Final Examinations, and having prepared a Thesis of sufficient merit in the estimation of the Faculty to entitle him to compete, shall take the highest marks in a special Examination for the Medal, which examination shall include the subject of Roman Law.

14. Every Candidate, before receiving the Degree of B.C.L., shall make the following declaration :—

Ego A. B. polliceor, me, pro viribus meis, studiosum fore communis hujus Universitatis boni, operamque daturum ut decus ejus ac dignitatem amplificem, et officiis omnibus ad Baccalaureatus in Jure Civili gradum pertinentibus fungar.

15. The fees in the Faculty are as follows :—

Registration Fee	$ 5 00
Sessional Fee by Ordinary Students	36 00
Graduation Fee, including registration as voter in election of fellows	12 50
Fee for supplemental examination	5 00
Sessional Fee by Occasional or Partial Students, for each course	3 00
For Occasional or Partial Students who are students in other departments of the University or affiliated Colleges, taking two or more courses, a single fee of	5 00

Matriculation and Sessional Fees must be paid on or before Nov. 1st ; and if not so paid, the name of the Student shall be removed from the books, but may be re-entered by consent of the Faculty, and on payment of a fine of not less than $3. Students already on the books of the University shall not be required to pay any Matriculation Fee.

16. Occasional or Partial Students may be admitted into any class on such terms as shall be arranged by the Faculty.

17. The requirements and conditions for obtaining the Degree of D.C.L. in course can be ascertained upon application to the Secretary of the Faculty.

SYLLABUS.

Friday, 1st September, 1893. Matriculation and Supplemental Examinations.
Monday, 4th. Ordinary Lectures begin.
Saturday, 9th December. Last day for notice to be sent to Secretary of Section of the Bar by candidates at the January Examination for admission to study or to practise Law in the Province of Quebec.
Thursday, 4th January, 1894. Lectures, Second Term, begin.
Wednesday, 10th January, 1894. Bar Examinations take place at Montreal.
Tuesday, 27th Feb. Theses for Degree of B.C.L.
Monday, 23rd April. Declaration of results of Examination.
Friday, 27th April. Convocation for Degrees in Law.
Monday, 5th June. Last day for notice to be sent to Secretary of Section of the Bar by candidates at the July Examination for admission to study or to Practise Law in the Province of Quebec.
Wednesday, 4th July, 1893. Bar Examinations take place at Quebec.

EXAMINATIONS.

The dates of Examinations, subject to be changed if need be, by the Faculty.

Before Christmas :—

Friday, 1st September, 1893, 4 to 6 p.m. Matriculation and Supplemental Examinations—Faculty Rooms, Fraser Institute.
Saturday, 25th November, 1893, 3 to 5 p.m. On Preliminary Course on Obligations—The Dean.
Tuesday, 12th December, 1893, 4 to 6 p.m. On Legal History and Bibliography —Prof. McGoun.
Wednesday, 13th December, 1893, 4 to 6 p.m. On Civil Law (Persons)—Prof. Lafleur.
Thursday, 14th December, 1893, 4 to 6 p.m. On Roman Law—The Dean.
Friday, 15th December, 1893, 4 to 6 p.m. On Contracts—Prof. Geoffrion.
Saturday, 16th December, 1893, 3 to 5 p.m. On Agency and Partnership—Prof. Davidson.

After Christmas :—

Saturday, 10th February, 1894, 3 to 5 p.m. Real Estate—Prof. Wurtele.
Saturday, 24th February, 1894, 3 to 5 p.m. Criminal Law—The Dean.
Saturday, 17th March, 1894, 2 to 5 p.m. On Civil Procedure—Prof. Fortin.
Tuesday, 17th April, 1894, 4 to 6 p.m. On International Law—The Dean.
Wednesday, 18th April, 1894, 4 to 6 p.m. On Civil Law (Successions)—Prof. Doherty.
Thursday, 19th April, 1894, 4 to 6 p.m. On Commercial Law (Sales)—Prof. Archibald.
Friday, 20th April, 1894, 4 to 6 p.m. On Law of Railways—Prof. Abbott.
Saturday, 21st April, 1894, 3 to 5 p.m. On Notarial Law—Prof. Marler.

MEETINGS OF FACULTY.

In the Faculty Rooms, Fraser Institute, at 3 P.M.

Friday 1st, Monday 4th September, 1893.
Monday 2nd October, 1893.
" 6th November, "
" 11th December, "
" 8th January, 1894.
" 5th February, "
" 5th March, "
" 9th April, "
" 23rd " "
" 4th June, "

FACULTY OF LAW—TIME TABLE, 1893-94.

I. MONDAY, 4th September, to FRIDAY, 29th September, 4 weeks.

HOURS.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30 to 9.30 a.m.	Prof. McGoun.		Prof. McGoun.		Prof. McGoun.
4 to 5 p.m.	The Dean.	Prof. Fortin.	The Dean.	Prof. Fortin.	The Dean.
5 to 6 p.m.	Prof. Lafleur.	The Dean.	Prof. Lafleur.	The Dean.	Prof. Lafleur.

II. MONDAY, 2nd October, to FRIDAY, 3rd November, 5 weeks.

8.30 to 9.30 a.m.	Prof. McGoun.		Prof. McGoun.		Prof. McGoun.
4 to 5 p.m.	The Dean.	Prof. Fortin.	The Dean.	Prof. Fortin.	The Dean.
5 to 6 p.m.	Prof. Lafleur.	Prof. Davidson.	Prof. Lafleur.	Prof. Davidson.	Prof. Lafleur.

III. MONDAY, 6th November, to FRIDAY, 8th December, 5 weeks.

4 to 5 p.m.	Prof. Fortin.	The Dean.	Prof. Fortin.	The Dean.	Prof. Fortin.
5 to 6 p.m.	Prof. Davidson.	Prof. Geoffrion.	Prof. Davidson.	Prof. Geoffrion.	Prof. Davidson.

IV. THURSDAY, 4th January, to FRIDAY, 2nd February, 4½ weeks.

8.30 to 9.30 a.m.		Prof. Doherty.		Prof. Doherty.	
4 to 5 p.m.	Prof. Fortin.	The Dean.	Prof. Fortin.	The Dean	Prof. Fortin.
5 to 6 p.m.	Prof. Archibald.	Prof. Wurtele.	Prof. Archibald.	Prof. Wurtele.	The Dean.

V. MONDAY, 5th February, to FRIDAY, 8th March, 5 weeks.

8.30 to 9.30 a.m.		Prof. Doherty.		Prof. Doherty.	
4 to 5 p.m.	The Dean.	The Dean.	The Dean.	The Dean.	The Dean.
5 to 6 p.m.	Prof. Archibald.	Prof. Abbott.	Prof. Archibald.	Prof. Abbott.	Prof. Archibald.

VI. MONDAY, 11th March, to FRIDAY, 12th April, 5 weeks.

8.30 to 9.30 a.m.		Prof. Doherty.		Prof. Doherty.	
4 to 5 p.m.	The Dean.		The Dean.		The Dean.
5 to 6 p.m.	Prof. Abbott.	Prof. Marler.	Prof. Abbott.	Prof. Marler.	Prof. Abbott.

APPENDIX.

The attention of intending Students is called to the following provisions of the Revised Statutes of Quebec and amendments, as bearing on the requirements for the study and practice of Law in the Province :—

ARTICLE 3544 R.S.Q.—Examinations for admission to study and to practise law in the Province of Quebec are held at the time and place determined by the General Council.

The places and dates as at present fixed are

MONTREAL, - Wednesday, 10th Jan., 1894.

QUEBEC, - - Wednesday, 4th July, 1894.

and alternately at Montreal and Quebec every six months, namely—at Montreal on the second Wednesday of each January, and at Quebec on the first Wednesday of each July.

All information concerning these examinations can be obtained from the General Secretary's Office. The present General Secretary is W. C. Languedoc, Esq., Quebec.

ARTICLE 3546.—Candidates must give notice as prescribed by this Article, at least one month before the time fixed for the examination, to the Secretary of the Session in which he resides, or in which he has resided for the last six months.

The present Secretary of the Montreal Section is Mr. Charles Lanctot, 1608 Notre Dame street, Montreal.

ARTICLE 3503a.—Added by Statute of Quebec, 53 Victoria (1890), Cap. 45, provides that Candidates holding the diploma of Bachelor of Arts, Bachelier-es-Lettres, or Bachelier-es-Science from a Canadian or other British University, is dispensed from the examination for admission to study. Such Candidates are, however, recommended to give the notice required as above.

ARTICLE 3548 R.S.Q. (as altered by by-law of the General Council).—On giving the notice prescribed by Article 3546, the Candidate pays to the Secretary a fee of $2.00, and makes a deposit of $30.00, for admission to study, or of $70.00 for admission to practice, which deposit, less $10.00, is returned in case of his not being admitted.

ARTICLE 3552.—To be admitted to practice, the Student must be a British subject, and must have studied regularly and without interruption during ordinary office hours, under indentures before a Notary, as Clerk or Student, with a practising Advocate, during Five Years, *dating from the registration of the certificate of admission to study.* This term is reduced to Four years in this case of Student who has followed a regular law course in a University or College in this Province, and taken a degree in law therein.

REQUIREMENTS FOR DEGREE OF DOCTOR OF CIVIL LAW.

ADOPTED OCTOBER, 1891.

Every Candidate for the Degree of D.C.L. in Course must be a Bachelor of Civil Law of twelve years' standing, and must pass such examination for the Degree of D.C.L. as shall be prescribed by the Faculty of Law. He shall also, at least two months before proceeding to the Degree, deliver to the Faculty twenty-five printed copies of a Thesis or Treatise of his own composition on some subject selected or approved by the Faculty, such Thesis to contain not less than fifty octavo pages of printed matter, and to possess such degree of merit as shall, in the opinion of the Faculty, justify them in recommending him for the degree.

The Candidate shall also pay to the Secretary of the Faculty, annually during the period of twelve years, for the retention of his name on the books of the Faculty, a fee of two dollars, to form part of the Library Fund of the Faculty. Upon cause shown, however, and with the consent of the Faculty, such fees may be paid at one time before the granting of the degree.

The Examination for the Degree of D.C.L. in Course, which shall be open to all who have taken the degree of B.C.L. of this University in the past, as well as to such as may take the degree in future, shall, until changed, be on the following subjects and authors, with the requirement of special proficiency in some one of the groups below indicated. In the groups other than the one selected by the Candidate for special proficiency, a thorough acquaintance with two works of each group shall be sufficient, including in all cases the work first mentioned in each group and the first two works in group third.

1. INTERNATIONAL LAW.

Phillimore, International Law.
Hall, " "

Wharton, Conflict of Laws.
Savigny's International Law, by Guthrie.
Fœlix, Droit International Privé.
Brocher, Droit International Privé.
Dicey on Domicile.
Story, Conflict of Laws.
Maine, Lectures on International Law.

2. Roman Law.

Ortolan's Institutes.
Mommsen's History of Rome.
Roby's Introduction to the Digest.
Muirhead's Roman Law.
Mackenzie's Roman Law.
Savigny's Roman Law in the Middle Ages.
Bryce's Holy Roman Empire.
Institutes of Gaius.
Fustel de Coulanges, La Cité Antique.

3. Constitutional History and Law.

Dicey's Law of the Constitution.
Stubbs' Constitutional History of England.
Hearn, Government of England.
Bagehot, English Constitution.
Franqueville, British Government and Parliament.
Gneist, Constitution of England.
Hallam, Constitutional History of England.
May, " " "
Gardiner, " " "
May, Democracy in Europe.
Freeman, Growth of the English Constitution.
Mill, Representative Government.
Bentham, Fragment on Government.
Maine, Popular Government.

4. Constitution of Canada and Works relevant thereto.

Todd, Parliamentary Government in the British Colonies.
Bourinot, Federal Government in Canada.
Doutre, Constitution of Canada.
Cartwright, Cases under the British North America Act.
Lord Durham's Report on British North America.
Lareau, Histoire du Droit Canadien.
Houston's Constitutional Documents of Canada.
Volume O., Statutes of Lower Canada.
Masères' Collection of Quebec Commissions.
Laferrière, Essai sur l'histoire du droit français.
Dilke, Problems of Greater Britain.
Matthews (Jehu), A Colonist on the Colonial Question.
Bryce, American Commonwealth.
Curtis, History of the Constitution of the United States.
Cooley, Principles of Constitutional Law.

5. Criminal Law, Jurisprudence and Political Science.

Stephens, History of the Criminal Law.
Blackstone, Vol. IV.
Harris, Principles of Criminal Law.
Pike, History of Crime.
Holland's Elements of Jurisprudence.
Austin, Lectures, omitting chapters on Utilitarianism.
Lorimer's Institutes.
Amos, Science of law.
Woolsey, Political Science.
Lieber, Political Ethics.
Freeman, Comparative Politics.
Aristotle's Politics, by Jowett.

Faculty of Comparative Medicine and Veterinary Science.

THE PRINCIPAL (*Ex-officio*).

Professors :

MCEACHRAN (D.), BAKER, MCEACHRAN (C.).

Associate Professors :

GIRDWOOD, PENHALLOW,
WILKINS, MILLS.
BLACKADER. ADAMI.

Dean of the Faculty :—D. MCEACHRAN, D.V.S.
Registrar :—C. MCEACHRAN, D.V.S.

The Fifth Session of the Faculty (being the twenty-eighth of the Montreal Veterinary College) will be opened on Tuesday, the 3rd October, 1893, by an introductory lecture, at 8 p.m., in the lecture-room of the Faculty, No. 6 Union Avenue. The regular courses of lectures will begin on Wednesday, 4th October, at the hours named in the time table, and will continue till the end of March.

The complete curriculum in this Faculty extends over three years. Graduates of recognized Medical Colleges are allowed to present themselves for examination after regular attendance on one full sessional course; graduates of recognized Agricultural Colleges, in which Veterinary Science constitutes a branch of study, after regular attendance for two full courses.

Allowances will be made to students of Human or Comparative Medicine, or others who can produce certified class tickets for attendance on any of the subjects embraced in the curriculum from any recognized college or university.

Graduates and students who avail themselves of the above privileges will nevertheless be required to pass an examination in the subjects comprised in the three years' course, unless, from satisfactory evidence otherwise produced, the examiners consider it to be unnecessary.

Graduates of recognized Veterinary Colleges, desirous of taking the degree, may do so by attendance on the final subjects for one full session, but will be required to pass the examinations on all the subjects embraced in the curriculum, botany excepted.

Occasional and agricultural students will be received without matriculation for attendance on any particular series of lectures. Such students will not be examined, nor will they be entitled to receive class certificates except as occasional students, nor will such attendance be accepted should the student subsequently wish to become a regular student of the Faculty.

MATRICULATION.

Every student, previous to his admission, must produce a certificate of educational acquirements satisfactory to the Faculty, or submit himself to a matriculation examination in (1) writing, (2) reading aloud, (3) dictation, (4) English grammar, (5) composition, (6) outlines of geography with special reference to North America, (7) arithmetic (including vulgar and decimal fractions).

A. N. Shewan, M.A., will hold the matriculation examination on Saturday, 30th Sept., 9 a.m., at the College, 6 Union Avenue, when all those intending to enter the course should present themselves for examination. Candidates possessing certificates of education or of previous matriculation should produce them for the inspection and approval of the examiner. Graduates of any Faculty in a recognized University or Agricultural College are not required to matriculate.

No College is recognized unless its students are required to matriculate.

NOTE—It is contemplated to add the rudiments of Latin to the matriculation in the near future.

REGISTRATION AND PAYMENT OF FEES.

The following are the College regulations :—

All students desirous of attending the classes shall, at the commencement of each session, enroll their names and residences in the register of the Faculty, and procure from the Registrar a ticket of registration, for which each student shall pay a fee of $5.

The said register shall be closed on the last day of October in each year. The fees are payable to the Registrar and all class tickets will be issued by him, and must be paid in advance (except under special circumstances) at the time of registration.

All students must register, including those who receive free bursaries.

Fees for the whole course are $180, which may be paid in three annual payments of $60 each, which, in all cases, must be paid on entering. Matriculation fee, $5, which is to be paid prior to the examination ; $5 for registration, and $5

for re-registration, payable at the beginning of each of the following two Sessions, and $20 on receiving the diploma. Students who are allowed time for previous study will be required to pay full fees. Payments must be made in all cases as above.

SCHOLARSHIPS.

The Faculty offers for competition this session (1893-4) two scholarships of fifty dollars each : one for first, and the other for second year students. These scholarships will be awarded to the student in each year who has the highest aggregate, and who obtains not less than fifty per cent. in any one subject, and an average of seventy-five per cent. of the total number of marks attainable.

STUDENTS OF THE PROVINCE OF QUEBEC.

In consideration of the annual grant, the Council of Agriculture has the privilege of sending thirteen pupils, free of expense, to the whole course ; such students, however, pay a fee of $5 for the course in Botany and $5 annually for registration. These Bursaries may be obtained by young men resident in the Province of Quebec, by application made to the Dean of the Faculty in the handwriting of applicant, accompanied by a recommendation from the Agricultural Society of the district in which he resides, provided the Council considers him qualified by education and in other respects for entering the College.

In all cases, except when specially arranged, Bursars will be required to give a guarantee that they will attend three Sessions ; and failing to do so, they shall be required to pay the fees for the Sessions which they have attended.

GENERAL REGULATIONS.

Students of this Faculty will be graded as of the first, the second, and the final year.

In each year students will take the studies fixed for that year only, unless by special permission of the Faculty.

Persons desirous of entering as Occasional Students shall apply to the Dean of the Faculty for admission as such, and shall obtain a ticket or tickets for the class or classes they desire to attend.

All Students shall be subject to the following regulations as regards attendance and conduct :—

A class-book shall be kept by each Professor and Lecturer, in which the presence or absence of Students shall be carefully noted ; and the said class-book shall be submitted to the Faculty at a meeting to be held between the close of the lectures and the commencement of the examinations ; and the Faculty shall, after examination of such class-book, decide which Students shall be deemed to have been sufficiently regular in their attendance to entitle them to proceed to the examination in the respective classes.

Punctual attendance on all the classes proper to his year is required of each Student. Absence or tardiness, without sufficient excuse, or inattention or disorder in the Class-room, if persisted in after admonition by the Professor, will be reported to the Dean of the Faculty, who may reprimand the Student or report to the Faculty, as he may decide. While in the building, or going to or from it, Students are expected to conduct themselves in the same orderly manner as in the Class-rooms. Any Professor observing improper conduct in the Class-rooms, or elsewhere in the building, will admonish the Student, and, if necessary, report him to the Dean.

When Students are reported to the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, disqualify from competing for prizes or honors, suspend from classes, or report to the Corporation for expulsion.

Any Student injuring the furniture or building will be required to repair the same at his own expense, and will, in addition, be subject to such penalty as the Faculty may see fit to impose.

All cases of discipline involving the interest of more than one Faculty, or of the University generally, shall be reported to the Principal, or, in his absence, to the Vice-Principal.

The College year shall be divided into two terms, the first extending to the Christmas vacation, and the second from the expiration of the Christmas vacation to the 30th March following.

Each lecture shall be of one hour's duration, but the Professors shall have the right to substitute an examination for any such lecture.

At the end of each term there shall be a general examination of all the classes, under the superintendence of the Professors and such other examiners as may be appointed by the Corporation. The results shall be reported as early as possible to the Faculty.

The Students have all the privileges of the McGill Medical Faculty's Laboratories, which are thus described in their annual calendar:—

PHYSIOLOGICAL LABORATORY.

The Physiological Laboratory, which is situated on the ground floor, is supplied with the most modern apparatus for the practical teaching of this most important branch of the medical curriculum. It contains, amongst other valuable instruments: kymographs, various manometers, etc., for demonstrating blood pressure; myographs, rheocords, moist chambers, etc., and various electrical appliances for demonstrating experiments in connection with nerve and muscle; special apparatus for illustrating various points in respiration; apparatus specially suitable for demonstrating the processes of digestion, as well as the chemical composition and nature of the secretions, and the chief constituents of the tissues and nutritive fluids. The laboratory is arranged in such a way as to permit of Students assisting at, and taking part in, these demonstrations. [During the past

session, important additions of apparatus have been made to the Physiological Laboratory.]

CHEMICAL LABORATORY.

The Chemical Laboratory is large, lofty and well lighted, and can accommodate comfortably 76 men at one time. Each Student, when entering on his course, has a numbered table in the laboratory assigned to him for his use during the session. Each table has its own gas and water fixtures, and is provided with shelves for its corresponding set of reagent-bottles, as well as a drawer and locker containing a modern set of chemical apparatus specially adapted for the work. This apparatus is provided by the Professor of Chemistry, and supplied to each Student without extra charge. The Student is required to pay only for apparatus broken or destroyed.

The laboratory is furnished with a large draught closet for ventilation, sulphuretted hydrogen apparatus, gas and combustion furnaces, etc., giving to the Student unsurpassed advantages for acquiring a sound and practical knowledge of medical chemistry.

PATHOLOGICAL LABORATORY.

In the Pathological Laboratory accommodation will be provided for Students or practitioners who desire to carry on advanced study or private pathological research.

The laboratory has been entirely re-built recently, and is well stocked with the usual apparatus for pathological and bacteriological work.

The demonstrations in Morbid Anatomy will be given in a small laboratory, specially arranged for the work.

The classes in Pathological Histology will be held in the Histological Laboratory.

HISTOLOGICAL LABORATORY.

The Histological Laboratory is a large, well lighted room on the second floor. It is so arranged, that over eighty students can be present at the microscopical demonstrations. For this purpose, it is supplied with thirty-five microscopes, all from the well known makers, Zeiss, Hartnack and Leitz. From the large number of microscopes employed, students will have special facilities in studying and making themselves thoroughly acquainted with the specimens that are subjects of demonstration.

PRACTICAL MICROSCOPY.

This is an entirely optional course, in charge of Prof. Wilkins, assisted by Dr. Gunn. It is intended especially for teaching the technique of Microscopy. Students will be shown how to examine blood, etc., also to cut, stain, and mount

specimens. For this purpose they will have furnished them normal structures, with which they will be able to secure a cabinet of at least 100 specimens, which will be of great benefit when in practice. Reagents and apparatus, except cover-glasses and cabinet cases, provided. Fee, $8.

COURSES OF LECTURES.

BOTANY.*

D. P. PENHALLOW, B.Sc.

The course in Botany includes General Morphology, Histology, Physiology and Classification. It is designed to give special prominence to Physiology, which will be made comparative whenever practicable. The course is illustrated by the microscope and gas microscope, and by the collections, models and apparatus in the Redpath Museum. Use is also made of the resources for practical instruction in Morphology, now afforded by the Botanic Garden.

ZOOLOGY.*

W. E. DEEKS, B.A., M.D.

This course includes a systematic study of the classification of animals, illustrated by Canadian examples and by the collections in the Peter Redpath Museum. It affords suitable preparation for collecting in any department of Canadian Zoology or Palæontology, and as an introduction to Comparative Physiology.

Students in Botany or Zoology will receive tickets to the Peter Redpath Museum and to the Museum of the Natural History Society of Montreal.

It is optional with students to select either the course on Botany or on Zoology.

CHEMISTRY.

GILBERT P. GIRDWOOD, M.D.

Inorganic Chemistry is fully treated; a large portion of the course is devoted to Organic Chemistry and its relations to Medicine. The branches of Physics bearing upon or connected with Chemistry also engage the attention of the Class. For experimental illustration abundant apparatus is possessed by the College.

The Chemical Laboratory will be open to members of the Class to repeat experiments performed during the course, under the superintendence of the Professor or his Assistant.

*Students may take either Botany or Zoology, but must intimate at the beginning of the Session their choice, and adhere to this, except by special permission of the Faculty. Students desiring to attend both subjects in one session may do so by permission of the Faculty.

PHYSIOLOGY.

WESLEY MILLS, M.D.

The purpose of this Course is to make Students thoroughly acquainted, so far as time permits, with modern Physiology, its methods, its deductions, and the basis on which the latter rest. Accordingly, a full course of lectures is given, in which both the Experimental and the Chemical departments of the subject receive attention.

In addition to the use of diagrams, plates, models, etc., every department of the subject is experimentally illustrated. The experiments are free from elaborate *technique*, and many of them are of a kind susceptible of ready imitation by the student.

Laboratory work for Senior Students :—

(1) During the first part of the Session there will be a course on Physiological Chemistry, in which the Student will, under direction, investigate food-stuffs, digestive action, blood, and the more important secretions and excretions, including urine. All the apparatus and material for this course will be provided.

(2) The remainder of the Session will be devoted to the performance of such experiments as are unsuitable for demonstration to a large class in the lecture room, and such as require the use of elaborate methods, apparatus, etc.

HISTOLOGY.

GEO. WILKINS, M.D.

This will consist of a course of ten lectures and twenty-five weekly demonstrations with the microscope. As the demonstrations will be chiefly relied upon for teaching the Microscopic Anatomy of the various structures, the specimens under observation will then be minutely described. Plates and diagrams specially prepared for these lectures will be freely made use of.

COMPARATIVE PATHOLOGY.

J. G. ADAMI, M.D.

The teaching in Pathology at McGill Medical College includes courses in general and special Pathology, in Bacteriology (held during the Summer Session) and instruction in the performance of Autopsies. These courses—while directed especially towards giving to the Students a due knowledge of the causation and course of disease in man— are necessarily based largely upon the results of observations upon the lower animals, and the greater part of all these causes is applicable equally to conditions obtaining in the domestic animals. There is in addition a practical course of Pathological Histology for Students of Comparative Medicine, and instruction is given upon the performance of Autopsies upon the lower animals.

MEDICINE AND SURGERY.

D. McEachran, F.R.C.V.S.

Students of all years must attend.

The course embraces the principles and practice of Veterinary Medicine, including the diseases of domestic animals, their nature, causes, symptoms and treatment. It necessarily includes Pathology and Pathological Anatomy, with daily clinical demonstrations in the hospital and the yard practice of the College, ae well as illustrations from plates, preserved specimens, and fresh material furnished by the Pathologist.

The course on Surgery embraces Surgical Anatomy and Practices of Surgery, and will be illustrated by a large collection of surgical appliances.

The large and varied practice of the College furnishes abundance of cases for demonstration purposes.

Special lectures will be given on Sanitary Science, Quarantine, inspection of meat and milk, and also on the examination of horses for soundness.

ANATOMY.

M. C. Baker, D.V.S.

In this course the Anatomy of the horse is the subject of special study; while the structural differences of all the domestic animals are carefully explained and illustrated by fresh subjects. There is a very large collection of anatomical models by Dr. Auzoux, of Paris, natural injections and dissections, and a most complete collection of diagrams, including Marshall's complete set, M. Achille Comte's Anatomical and Zoological series, also a large collection of drawings specially prepared for the school by Mr. Scott Leighton, artist, Boston, and Mr. Hawksett, Montreal.

The dissecting room is open at all hours, subjects are easily procured, and either the Professor or Demonstrator will be in attendance to superintend and direct students in practical dissection. The room is furnished with every convenience, is thoroughly lighted, and affords students all that can be reasonably desired.

Students are required to pay for the material necessary for practical anatomy.

Before a student can be allowed to present himself for his pass examination, he must produce tickets certified by the demonstrator that he has dissected two entire subjects, that is, one each session.

MATERIA MEDICA AND THERAPEUTICS.

A. D. Blackader, M.D.

This course comprises a description of the physiological and therapeutic action of all the more important medicines used in Veterinary Practice, with a short

reference to their general properties and principal preparations. It will also include a course in the practical work of compounding and administering medicines in the pharmacy and hospital. There will also be a few experimental demonstrations of the action of some of the more important drugs on aninals.

CATTLE PATHOLOGY AND OBSTETRICS.

C. McEachran, D.V.S.

A special course on Cattle Diseases and Veterinary Obstetrics will be delivered, embracing the history of Cattle Plagues: their nature, symptoms, pathological anatomy, prophylacting and therapeutic treatment; breeding and general management of breeding animals; diseases incident to gestation and parturition, etc.

SPECIAL COURSE ON DOGS.

Professor Wesley Mills will give a special course on Dogs, which will include :—

(1) Lectures on the physical and psychic characteristics of all the leading varieties, illustrated by specimens from his own kennels and other sources, as well as by plates, etc.

(2) The principles of training; the feeding and general management of dogs.

(3) The principles of breeding; the management of brood bitches and the rearing of puppies.

(4) Bench show management and the public judging of dogs.

(5) The rights and duties of dog owners.

In all of the above courses the clinical and pathological aspects of the subjects will be considered, as well as the normal.

THE MUSEUM

contains a large collection of natural and artificial specimens, consisting of skeletons of almost all the domestic animals, numerous specimens of diseased bones, preparations by Dr. Auzoux of all the different organs in the body, natural dissections, colored models, diagrams, etc., etc., all of which are used in illustrating the lectures, and to which the Students have frequent opportunities of referring. Students will also enjoy the privileges of the Museum of the Medical Faculty of McGill University, which is rich in pathological specimens.

THE PHARMACY.

All the medicines used in the practice of the College are compounded by the Students, under the direction of the Professors, from prescriptions for each particular case, and most of them are administered or applied by them. For this purpose they are detailed for certain pharmaceutical duties alternately. By this

means they become familiar with the physical properties, compatibilities, doses and uses of the medicines, and become expert in administering them to the different patients brought for treatment.

THE PRACTICE.

The Hospital and Daily Clinics, as well as a very extensive out-door practice, incluling most of the largest stables in the City and numerous farms in the vicinity, afford excellent opportunities for clinical observation on horses of all breeds and ages. Owing to the numbers of cattle kept in the City, and the valuable thoroughbred herds in the neighborhood, advanced Students are enabled to see and to considerable cattle practice. The dog practice is the largest in Canada. All canine diseases can be studied clinically, owing to the large number of dogs brought to the College for medical or surgical treatment.

Senior Students will be appointed to act alternately as dressers in the Hospital, and first and second year men must assist in administering medicines and at operations.

FREE CLINICS.

To afford the Students still more extensive opportunities of clinical observation, an hour a day will be given to free clinics for animals belonging to the poor, which will be duly advertised.

TEXT-BOOKS.*

The following text-books are recommended :—

Anatomy—Chauveau's Comparative Anatomy ; Strangeway's Veterinary Anatomy ; McFadeyan's Veterinary Anatomy.

Physiology—Huxley's Elementary Lessons ; Prof. Mills' Text-Book of Comparative Physiology ; Outlines of lectures by the same author.

Histology—Klein's Elements ; Schafer's Essentials of Histology.

Botany—Gray's Structural Botany ; Bessey's Botany.

Zoology.—Dawson's Handbook.

Chemistry.—Wurtz's Elementary Chemistry ; Armstrong ; Remsen's Organic Chemistry.

Medicine and Surgery.—William's Principles and Practice of Veterinary Medicine ; Fleming's Sanitary Science and Police ; William's Surgery ; Fleming's Operative Surgery ; Robertson's Equine Medicine ; Liautard's Operative Veterinary Surgery.

Materia Medica.—Dun's Veterinary Medicines ; Walley's Veterinary Conspectus ; Tuson's Pharmacy.

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* Students are advised not to buy text-books extensively till after consultation with the Professor who teaches the subject.

Cattle Diseases.—Steel's Bovine Pathology; Clatter's Cattle Doctor (Armitage); Fleming's Veterinary Obstetrics.

Canine Diseases.—Prof. Mills' The Dog in Health and in Disease; Hill on the Dog.

Entozoa.—Cobbold's Entozoa of Domestic Animals.

Pathology.—Payne's Pathology.

BOARD AND TRAVELLING EXPENSES.

Board can be obtained at from $15 to $20 per month.

By the kindness of the Railway Companies, certified students of the College will be granted return tickets from Montreal to any part of their lines at greatly reduced rates, the said tickets to hold good from the close of one session to the beginning of the next.

Return tickets will also be granted for the Christmas vacation.

VETERINARY MEDICAL ASSOCIATION.

This Association is for the mutual improvement of its members in all matters pertaining to the profession.

The members are graduates and students of Veterinary Medicine, also graduates and students of Human Medicine.

The meetings are held fortnightly, at which papers are read and discussed, cases reported, etc.

The advantages which students derive from these meetings are very great. Not only do they hear carefully prepared papers on subjects of professional importance, but an opportunity is afforded for practising public speaking, which in after-life is often extremely useful. The fees of the Association are expended in the purchase of books for the Library, drugs for experimental purposes, and the prizes awarded for papers read.

The Library is owned by the Association, and is under the control of officers who are elected annually. It contains nearly 600 volumes, embracing works of great antiquity, as well as the modern works on Veterinary Science and collateral subjects, in both the English and French languages, all of which are available for consultation and study by members.

Every student is expected to become a member. The entrance fee is $5, and the yearly subscription $2.50. A Diploma of Honorary Fellowship is conferred on all members who have complied with the regulations of the Association.

ASSOCIATION FOR THE STUDY OF COMPARATIVE PSYCHOLOGY.

This Society is similar in constitution to the Veterinary Medical Association.

Its object is the study of the Psychic Phenomena (intelligence, etc.) of all classes of animals, and the diffusion of sounder views on this subject.

Naturally, it is of great importance in the practice of medicine upon dumb animals, as well as of peculiar scientific interest.

QUALIFICATIONS FOR THE DEGREE.

Candidates for the Final Examination shall furnish testimonials of attendance on lectures on the following subjects :—

Either Botany on Zoology, Histology, } One course of six months, 1st year.

Chemistry, Physiology, Anatomy, } Two courses of six months, 1st and 2nd years.

General Pathology and Demonstrations, one course of six months.

Cattle Diseases and Obstetrics, Practice of Medicine and Surgery, Materia Medica and Therapeutics, } Two courses, 2nd and 3rd years.

No one will be permitted to become a candidate for examination who shall not have attended at least one full course of lectures in this Faculty, including all the subjects embraced in the curriculum.

Courses of less length than the above will be received only for the time over which they have extended.

Students, except by special permission of the Faculty, must pursue the subjects of Anatomy, Chemistry, Histology and Botany in their first session, and are advised to take Physiology in addition.

Candidates who fail to pass in not more than two subjects of the first two years may be granted a supplemental examination at the beginning of the following session.

Supplemental examinations will not be granted, except by special permission of the Faculty, and on written application, stating reasons.

Candidates who fail to pass in a subject of which two courses are required, may, at the discretion of the Faculty, be required to attend a third course, and furnish a certificate of attendance thereon.

In addition to the written and oral examinations, candidates must pass a practical clinical test, including examination of horses for soundness, written reports being required ; the clinical reports to include diagnosis, prognosis and treatment.

The following oath or affirmation will be exacted from the candidate before receiving the degree :—

DECLARATION OF GRADUATES IN COMPARATIVE MEDICINE AND VETERINARY SCIENCE.

I, ———, promise and solemnly declare that I will, with my best endeavors, be careful to maintain the interests of this University, and that, to the best of my ability, I will promote its honor and dignity.

EXAMINATIONS.

First Year.—Pass Examinations in Botany or Zoology and Histology (oral), and sessional examinations on the other subjects of the course of the year.

Second Year.—Pass Examinations in Chemistry, Physiology, Histology (written) and Anatomy, in addition to sessional examinations.

Third Year.—Pass Examination in Practice of Medicine and Surgery, General and Special Pathology, Veterinary Obstetrics, Diseases of Cattle and Materia Medica and Therapeutics.

N.B.—Sessional Examinations will be held from time to time during the session, and attendance at these is compulsory. The standing attained at these examinations will be taken into account at pass examinations.

AGE FOR GRADUATION.

Students under seventeen will be received as apprentices, but cannot be entered as regular Students before attaining that age.

Minors may pass the Examinations, but cannot receive the Diploma until they are twenty-one years of age.

HINTS TO STUDENTS.

The Matriculation Examination which you have to undergo is by no means a severe one ; and if you are not prepared to pass it, you should begin at once to improve your education.

You had better not commence professional reading till you have become familiar with the fundamental subjects. Practice, except under the guidance of a thoroughly educated practitioner, is more likely to mislead than aid you.

It is advisable that you should arrive in Montreal before the opening day, so as to give you time to procure suitable lodgings. Endeavor by all means to be present at the introductory lectures on all subjects ; you cannot miss one lecture without thereby losing valuable preparatory information. Come prepared to procure at once the necessary text-books and note-books. Make your arrangements so as to enable you to devote your entire time and undivided attention to your studies, as the three sessions which the curriculum covers will be found none too long to accomplish the necessary proficiency in the various branches of study required of you.

NOTICE TO GRADUATES.

For the purpose of increasing pathological material for the classes, Graduates are earnestly requested to send any interesting or obscure pathological specimens which may be met with in their practice to the Pathologist at the Veterinary College, No. 6 Union Avenue. The specimens may be sent C.O.D. by express, and will in all cases be acknowledged. A report upon the nature of the specimen will be sent if desired ; and the specimens, when of sufficient interest, will be preserved in the Museum with the names of the donors affixed.

ORDER OF LECTURES.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8 to 9 a.m.	Anatomy.	Anatomy.	Anatomy.	Anatomy.	Anatomy.	Practical Anatomy.
9 to 10 a.m.	Practice of Medicine and Surgery.	Practice of Medicine and Surgery.	Practice of Medicine and Surgery.	Practice of Medicine and Surgery.	Practice of Medicine and Surgery.	Clinical Surgery.
10 to 11 a.m.	Cattle Pathology. 2nd and 3rd Year.	Pathology. 2nd and 3rd Year.	Cattle Pathology. 2nd and 3rd Year.	Pathology 3rd Year.	Pathology. 2nd and 3rd Year.	Pathological Demonstration.
11 a.m. to 12 p.m.	Practical Pharmacy and Hospital Practice.	Practical Pharmacy and Hospital Practice.	Practical Pharmacy and Hospital Practice.	Practical Pharmacy and Hospital Practice.	Practical Pharmacy and Hospital Practice.	Botany Demonstration. Practical Physiology.
1 to 2 p.m.	Physiology. 2nd Year.	Physiology. 2nd Year.	Physiology. 2nd Year.	Physiology 2nd Year.	Physiology. Demonstration. 1st and 2nd year men.	Histological Demonstration.
2 to 3 p.m.	* Materia Medica.	Botany.	*Materia Medica.	Botany.		
3 to 4 p.m.	Physiology. 1st Year.	Physiology. 1st Year.	Physiology. 1st Year.	Physiology. 1st Year.	Histology.	
4 to 5 p.m.	Chemistry.	Chemistry. † Materia Medica 5 to 6	Chemistry.	Chemistry †Materia Medica 5 to 6.	Chemistry.	Examination of Horses for Soundness.
8 to 10 p.m.	Practical Anatomy.	Practical Anatomy.	Practical Anatomy.	Practical Anatomy.	Practical Anatomy,	

* Union Avenue. † McGill.

McGill Normal School.

The McGill Normal School in the city of Montreal is established chiefly for the purpose of training teachers for the Protestant population, or for all religious denominations of the Province of Quebec other than the Roman Catholic. The studies in this school are carried on chiefly in English, but French is also taught.

Government of the School.

The Corporation of McGill University is associated with the Superintendent of Public Instruction in the direction of the McGill Normal School, under the regulations of the Protestant Committee of the Council of Public Instruction, and it is authorized to appoint a standing committee consisting of five members, called "The Normal School Committee," which shall have the general supervision of the affairs of the Normal School. The following members of the Corporation of the University constitute the committee of the Normal School for the Session of 1893-94.

NORMAL SCHOOL COMMITTEE.

The Principal of the University, *Chairman.*

Mr. Samuel Finley,
Mr. George Hague, } Governors of McGill College.

Rev. George Cornish, LL.D.,
J. R. Dougall, M.A., } Fellows of McGill University.

J. W. Brakenridge, B.C.L., *Acting Secretary.*

OFFICERS OF INSTRUCTION.

McGILL NORMAL SCHOOL.

SAMPSON PAUL ROBINS, M.A., LL.D., *Principal and Ordinary Professor of Mathematics, and Lecturer on Art of Teaching.*
ABNER W. KNEELAND, M.A., *Ordinary Professor of English Language and Literature.*
MADAME SOPHIE CORNU, *Professor of French.*
MISS GREEN, *Professor of Drawing.*
MR. R. J. FOWLER, *Instructor in Music.*
LILIAN B. ROBINS, B.A., *Assistant to the Principal, and Instructor in Classics.*
MR. W. H. SMITH, *Instructor in Tonic Sol-Fa.*
MR. JNO. P. STEPHEN, *Instructor in Elocution.*

MODEL SCHOOLS OF THE McGILL NORMAL SCHOOL.

ORRIN REXFORD, B.Sc., *Head Master of Boys' School.*
MISS MARY J. PEEBLES, *Head Mistress of Girls' School.*
MISS LUCY H. DERICK, *Head Mistress of Primary School.*

ANNOUNCEMENT FOR THE SESSION 1893-94.

This Institution is intended to give a thorough training to teachers, by instruction and training in the Normal School itself, and by practice in the Model Schools; and the arrangements are of such a character as to afford the greatest possible facilities to Students from all parts of the Province.

The thirty-eighth session of this School will commence on the first of September, 1893, and close on the thirty-first of May, 1894. The complete course of study extends over four years, and the Students are graded as follows :—

1.—*Elementary School Class.*—Studying for the Elementary School Diploma.

2.—*Model School Class.*—Studying for the Model School Diploma.

3.—*Academy Class.*—Studying for the Academy Diploma.

All the following regulations and privileges apply to male and female students alike.

I. TERMS OF ADMISSION.

(*Extracted from the Regulations of the Protestant Committee of the Council of Public Instruction.*)

Any British subject who produces a certificate of good moral character from the minister of the congregation to which he belongs, and evidence to show that he has completed the sixteenth year of his age, may be admitted to examination for entrance into the Elementary School Class, or, if he has completed his seventeenth year, to the entrance examinations of the Model School Class. (*See Note a.*)

Previous to admission to the Elementary School Class, every pupil-teacher shall undergo an examination as to his sufficient knowledge of reading, writing, the rudiments of grammar in his own language, geography and arithmetic; before admission to the Model School Class he must give proof of his knowledge of the subjects of the previous year. Except as stated below, the examination shall take place before the Principal, or before such other person as he may specially appoint for the purpose. (*See Note b.*)

All candidates who present certificates of having passed in Grade III. Model School Course, and all holders of Elementary School diplomas, shall be exempt from examination for admission to the Elementary School Class. All candidates who have passed at the A.A. examinations, taking two-thirds of the aggregate marks, and who have passed in French, and all holders of Model School diplomas, shall be exempt from examination for admission to the Model School Class. Holders of Elementary School diplomas, desiring admission to the Model School Class, shall be examined in Algebra, Geometry and French only.

Candidates shall be admitted to examination for entrance only at the times regularly appointed by the Principal of the school at the beginning of the session. Candidates exempt from examination can only be admitted during the first week of the session, except that teachers who may be actually engaged in teaching at the commencement of the session may, at the discretion of the Principal, be admitted to the Elementary School Class not later than the close of the Christmas vacation. No teacher-in-training admitted later than the 1st of October shall share in that part of the bursary fund which is distributed at Christmas.

In exceptional cases the Principal of the Normal School may admit to the classes on trial persons whose qualifications may be insufficient for entrance. Such persons may be excluded from the School by the Principal whenever he may judge it best so to do; but none shall be permitted to enter or to remain on trial after the semi-sessional examinations.

No candidate is admitted to the Normal School until the provisions of the school laws respecting admission have been fulfilled. (*See Note c.*)

II. PRIVILEGES OF TEACHERS-IN-TRAINING.

All teachers-in-training are entitled to free tuition.

At the close of the semi-sessional examinations, the sum of $400 from the bursary fund will be divided among the forty most successful pupils who do not reside at home with parents or guardians during their attendance at the school. Similarly the sum of $800 will be divided at the close of the sessional examinations. The remainder of the bursary fund will be divided as an allowance for travelling expenses among teachers-in-training residing in the Province of Quebec at a distance of more than ninety miles from Montreal, in a proportion determined by the excess of distance above ninety miles, it being provided that no allowance for travelling expenses shall exceed ten dollars.

All teachers-in-training who pass the semi-sessional examinations in the Normal School with 60 per cent. of the total marks, and who have not fallen below 50 per cent. in any one of the groups of subjects, English, Mathematics, French and Miscellaneous, nor in any one of the subjects required by the Syllabus of Examination prescribed for diplomas of the grade to which they aspire, shall be entitled to continue in their classes after Christmas. Except by the special permission of the Principal, none other shall be entitled to this privilege nor to a share in the Christmas bursary.

All teachers-in-training, who attain the standards defined above at the final examinations of the Normal School, shall be entitled to diplomas of the grade of the class to which they belong, and except with the concurrence of the Principal of the school and the Professor of each subject in which there has been failure, none others shall receive diplomas or share in the bursary fund.

All holders of Elementary School diplomas obtained by reaching

the standards defined above shall be entitled to admission to the Model School Class, none others without the special permission of the Principal. Such holders of Elementary School diplomas as have taken not less than 75 per cent. of the total marks, nor less than 60 per cent. of those in any subject essential to the diploma, according to the Syllabus of Examination of the Protestant Committee of the Council of Public Instruction, shall be entitled to admission among the "selected students" mentioned in the following paragraph, but others may be so admitted by the Principal. (*See Note d.*)

III. STUDENTS FOR THE ACADEMY DIPLOMA.

1. The Normal School shall bring up selected students at the end of the Model School year to the examinations for the entrance into the first year of the Faculty of Arts of the Universities. They may be examined either at the examinations for the Associate in Arts in June or at those for the matriculation in autumn, and shall take the full course of study in the first and second years.

2. Such students shall be enrolled in the Normal School as students of the Academy Class, and shall be under the usual pledge to teach for three years. They shall engage in the practice of teaching at such times and in such schools as may be arranged by the Principal from time to time, in consistence with their college work, and shall be under the Principal and the regulations of the Normal School.

3. On report of the colleges which such students may be attending, that they have passed creditably in the Christmas and sessional examinations respectively, they shall be entitled to bursaries, not exceeding thirty dollars per session, in aid of fees and board. Such bursaries may be paid by the Normal School Committee out of any fund available for the purpose.

4. On passing the intermediate, or equivalent, examination of the Universities, such students will be entitled to receive Academy diplomas, in accordance with the regulations of the Protestant Committee of the Council of Public Instruction for such diplomas.

5. Such students may, with the advice of the Principal, attend classes at McGill or its affiliated colleges, or at Bishop's College, and the Normal School Committee shall make such arrangements as may be possible for free tuition at such colleges.

6. It shall be competent to the Principal of the Normal School to provide any tutorial assistance that may in his judgment be necessary for Academy students. Also, it shall be his duty in the case of optional studies to select for the students those required for the curriculum of the Normal School.

7. It shall be competent to students who have taken Academy diplomas as above to continue for two years longer at the University, or to return thereto, after teaching for a time, in order to take the degree of Bachelor of Arts ; but they shall be held bound to fulfil their engagements to teach, and they shall not be entitled to bursaries. (*See Note e.*)

Holders of Model School Diplomas of the McGill Normal School who are certified by the Principal of the Normal School to have taken 75 per cent. of the total marks at their final examinations, with not less than 60 per cent. of the marks in Mathematics, French, Latin and Greek respectively, shall be admitted without further examination to the first year in Arts of the McGill University ; but all such Students must make good their standing in the University at the Christmas examinations.

Teachers-in-training, who do not attain the standard defined above, must, in order to enter the University, pass the usual examination for Matriculation.

Exemption from the payment of fees in McGill College for the first year will be granted to the three holders of Model School Diplomas, not being resident in Montreal, who, of all those entering the University on the conditions stated above, have gained the highest aggregate of marks at their final examinations in the Normal School, as certified by the Principal of the Normal School.

Exemption from fees in the second year will be granted to the three students entering from the Normal School, who, with creditable standing in all their examinations at the close of the first year in Arts, have taken the highest aggregate of marks of any Normal School Students of their year.

IV. CONDITIONS OF CONTINUANCE IN THE NORMAL SCHOOL.

Teachers-in-training guilty of drunkenness, of frequenting taverns, of entering disorderly houses or gambling houses, keeping company with disorderly persons, or committing any act of immorality or insubordination, shall be expelled.

Each professor shall have the power of excluding from his lectures any Student who may be inattentive to his studies, or guilty of any minor infraction of the regulations, until the matter can be reported to the Principal. (*See Note c.*)

V. ATTENDANCE ON RELIGIOUS INSTRUCTION.

Teachers-in-training will be required to state with what religious denomination they are connected; and a list of the students connected with each denomination shall be furnished to one of the ministers of such denomination resident in Montreal, with the request that he will meet weekly with that portion of the teachers-in-training, or otherwise provide for their religious instruction. Every Thursday after four o'clock will be assigned for this purpose.

In addition to punctual attendance at weekly religious instruction each student will be required to attend public worship at his own church, at least once every Sunday.

VI. BOARDING HOUSES.

1. The teachers-in-training shall state the place of their residence, and those who cannot reside with their parents will be permitted to live in boarding houses, but in such only as shall be specially approved of. No boarding houses having permission to board male teachers-in-training will be permitted to receive female teachers-in-training as boarders, and *vice versa*. (*See Note g.*)

2. They are on no account to be absent from their lodgings after half-past nine o'clock in the evening.

3. They will be allowed to attend such lectures and public meetings only as may be considered by the Principal conducive to their moral and mental improvement.

4. A copy of the regulations shall be sent to all keepers of lodging houses at the beginning of the session.

5. In case of lodgings being chosen by parents or guardians, a written statement of the parent or guardian shall be presented to the Principal.

6. All intended changes of lodgings shall be made known beforehand to the Principal or to one of the professors.

7. Boarding-houses shall be visited monthly by a committee of professors.

8. Special visitations shall be made in case of sickness being reported, either by professors or by ladies connected with the school; and, if necessary, medical attendance shall be procured.

9. Students and lodging house keepers are required to report, as soon as possible, all cases of serious illness and all infractions of rules touching boarding houses.

VII. ACADEMY DIPLOMAS TO GRADUATES.

Granted under the Regulations of the Protestant Committee of the Council of Public Instruction.

Graduates in Arts from any British or Canadian University, who have passed in Latin, Greek and French in the Degree Examinations, or who have taken at least second class standing in these subjects at their Intermediate Examinations, shall be entitled to receive first class Academy diplomas, provided that they have also taken a regular course in the Art of Teaching at the McGill Normal School, or other public training institution outside the Province, approved by the Protestant Committee.

Graduates who have not passed in French, as prescribed above, may, on application, be examined in that subject before the Principal of the McGill Normal School, and, if satisfactory, such examination shall be accepted in lieu of the prescribed standing in French in the University examinations.

To meet the requirements of Graduates and Undergraduates in Arts, who, not having previously taken a Normal School course, desire to receive Academy diplomas of the first class under regulation 54, provision has been made for the delivery of a course of forty lectures on Pedagogy in the Normal School and for practice in teaching in the McGill Model School for forty half days, open to Graduates in Arts of any British or Canadian University, to Undergraduates of the third year, and, with the permission of the Faculty and the concurrence of the Principal of the Normal School, to those of the fourth year.

Undergraduates will be permitted to teach the forty half days referred to above, at times extending over the sessions of the Model School, corresponding to the third and fourth years of their college course. Graduates will be permitted to teach in the Model Schools at such times as may be agreed on with the Principal.

All persons taking this course of study in the Normal School shall be held to be subject to the regulations of the said school, and to be under the supervision of its Principal while in attendance thereat.

Graduates who have taken the above course of study in Pedagogy, and the first class Academy diploma, may be entered, if so desired by them, in the published lists of the University as holders of such diplomas.

Undergraduates who hold Model School diplomas in course from the McGill Normal School, who take at least second class standing in Latin and Greek in the Intermediate Examination of the Universities, shall be entitled to receive first class Academy diplomas.

Teachers who hold (*a*) Academy diplomas granted before the 1st July, 1886, or (*b*) second class Academy diplomas granted under these regulations, and who produce satisfactory proof to the Protestant Committee that they have taught successfully for at least ten years, shall, when recommended by the Committee, be entitled to receive first class Academy diplomas.

Any candidate who presents to the Principal of the McGill Normal School, (*a*) the requisite certificates of age and of good moral character, according to Form No. 1, below, and (*b*) satisfactory certificates that he has complied with either of the foregoing regulations, shall be recommended by him to the Superintendent of Public Instruction for an Academy diploma of the class to which he is entitled under these regulations.

FORM OF CERTIFICATE OF CHARACTER TO BE SUBMITTED BY CANDIDATES FOR ACADEMY DIPLOMAS.

"This is to certify that I, the undersigned, have personally known and had opportunity of observing ..... for the ..... last past; that during all such time *his* life and conduct have been without reproach; and I affirm that I believe *him* to be an upright, conscientious, and strictly sober *man*."

This certificate must be signed by the Minister of the Congregation to which the Candidate belongs, and by two School Commissioners, or Trustees or Visitors.

VIII. NOTES ON THE PRECEDING REGULATIONS.

Chiefly extracted from the by-Laws of the McGill Normal School.

(*a*) On application to the Principal of the School, candidates for admission will be furnished with forms of application, containing the required forms of certificate of good character and of agreement to teach for three years in some Public School in the Province of Quebec.

(*b*) Teachers-in-training admitted to the Elementary School class at the beginning of a session must be able to parse correctly a simple English sentence; to write a neat dictation from any school reader, with no more than five per cent. of mistakes in spelling, in the use of capitals, and in the division of words into syl'ables; to give the names and state the positions of the continents, of the oceans, of the greater islands, peninsulas, capes, mountains, gulfs, bays, straits, lakes, rivers, and the chief political divisions and most important cities of the world; and to work correctly examples in the simple rules of arithmetic and in fractions.

(*c*) Teachers-in-training are expected to give their whole time and attention to the work of the school, and are not permitted to engage in any other course of study or business during the session of the school.

There shall be no intercourse between male and female teachers-in-training while in school or when going to or returning from it. Teachers of one sex are strictly prohibited from visiting those of the other.

Teachers-in-training who leave the Normal School in the middle of a session are expected to assign to the Principal satisfactory reasons, accompanied, in case of failure of health, by medical certificates.

(*d*) The J. C. Wilson prize of forty dollars and a book, annually chosen by the donor, shall be given to that teacher-in-training of the Elementary School class who passes for a diploma, and takes the highest aggregate of marks at the final examination of the year.

The Prince of Wales' medal and prize shall be given to that teacher-in-training of the Model School class who passes for a diploma, and takes the highest aggregate of marks at the final examination of the year.

The Lord Stanley silver medal shall be given to that teacher-in-training of the Academy class, who at the University Intermediate Examinations has passed for a diploma with the highest aggregate of marks. If in any year there are teachers-in-training in two Universities, the Principal of the Normal School, in view of the examinations set, and of the number of marks reported for each examination, shall determine to whom this medal shall be awarded.

(*e*) In order to be recognized as teachers-in-training for the Academy diploma, Students who have fulfilled the conditions stated in the regulations of the Protestant Committee of the Council of Public Instruction must apply at the beginning of each collegiate year to the Principal of the Normal School for enrolment, and for certificates of enrolment to be presented to the Dean of the Faculty of Arts.

Having entered college, they must report to the Principal of the Normal School from time to time, as he may require, and must furnish him with certificates of having successfully passed their several examinations, without which certificates, signed by the Dean of the Faculty or his representative, no bursaries shall be paid.

(*f*) The date of the examination of graduates in Arts for Academy diplomas shall be the 20th day of May, or the school day next succeeding that date; the hours shall be from 10 a.m. to 12 noon.

(*g*) No boarding house is attached to the institution, but every care will be taken to ensure the comfort and good conduct of the Students in private boarding houses approved by the Principal, who will furnish lists to applicants for admission. Board can be obtained at from $12 to $16 per month.

IX COURSE OF STUDY.

N.B.—The subjoined Course of Study has been designed, and all instruction in it is given with express reference to the work of teaching.

1. ELEMENTARY SCHOOL CLASS, STUDYING FOR THE ELEMENTARY SCHOOL DIPLOMA.

With the view of accommodating teachers actually in charge of schools at the commencement of the Session, and whose previous education may enable them to enter at a more advanced period, the course of study in this class is divided into terms as follows:—

FIRST TERM, from September 1st to December 3rd.

(*Entrance Examination as stated above.*)

English.—The structure of sentences. Orthography and orthoëpy. Penmanship. The study of Milton's L'Allegro, and the Sermon on the Mount, Matt. V, VI and VII.

Geography.—General view of continents and oceans. North and South America. Eléments de Géographie moderne.

History.—Outline of general history. Histoire du Canada, en français.

Arithmetic.—Simple and compound rules.

Algebra.—The elementary rules.

Geometry.—Elementary notions, with Mensuration.

French.—Darey's Principes de Grammaire Française to page 50, with verbs of first conjugation. Méthode naturelle.

Botany.—High School Botany, Spotten.

Chemistry.—Lectures.

Reading and Elocution.

Drawing.—Elements, simple outlines and map drawing.

Music.—Vocal music with part songs. Junior Certificate of Tonic Sol-Fa College.

Art of Teaching.—Lectures on the principles of education, especially on those derived from the mental and moral nature of the child.

SECOND TERM, January 6th to end of Session.

(*No pupils will be received after the commencement of this term. Those who enter must pass the examination of the class in the work detailed above.*)

English.—Structure of words and sentences. Etymology, derivation and syntax. Study of Macaulay's Essay on Milton and of Goldsmith's Deserted Village.

Geography.—Contour, elevations, river systems, political divisions and chief cities of the Old World.

History.—Sacred. Histoire du Canada continuée.

Arithmetic.—Fractions, Decimals, Proportion, Interest, Properties of Numbers.

Book-keeping.—Single Entry.

Algebra.—Simple equations of one unknown quantity, with problems.

Geometry.—First book of Euclid, with deductions.

Art of Teaching.—Lectures continued.

French.—Principes de Grammaire Française, page 100, with verbs regular and irregular. Méthode naturelle.

Botany.—High School Botany, Spotten.

Physiology and Hygiene.—Lectures.

Reading and Elocution.

Drawing.—Freehand drawing from the solid, and elements of perspective.

Music.—Elements of vocal music and part songs. Elementary Certificate of Tonic Sol-Fa College.

Practice in Teaching in the McGill Model Schools, as directed by the Principal.

Religious Instruction will be given throughout the Session.

In addition to the text-books named above, each Student of the Elementary School Class must be provided with an Atlas of recent date, an Arithmetic, an Algebra, and a Euclid.

2. MODEL SCHOOL CLASS, STUDYING FOR THE MODEL SCHOOL DIPLOMA.

Students entering the School in this second year must have passed a satisfactory examination in the subjects of the Elementary School Class. The Class will pursue its studies throughout the Session, without division into terms.

English.—Principles of grammar and composition. Style. History of the English Language. Study of Shakespeare's Tempest, Scott's Lady of the Lake, Tennyson's Lotus Eaters.

Geography.—Mathematical and physical. Use of the globes.

History.—Greece, England.

Art of Teaching.—Lectures on the principles of education, especially on those derived from the mental and moral nature of the child.

Arithmetic.—Commercial arithmetic. Logarithms.

Book-keeping.—Double entry.

Algebra.—Equations of more than one unknown quantity, and quadratics.

Geometry.—Second, third and fourth books of Euclid, with application to mensuration.

Object Lessons.

Latin.—Grammar, Cæsar, Gallic War, Book I.

French.—Translation from French into English, and from English into French. Darey's Principes de Grammaire. Eléments de Littérature française, Lectures française, Méthode Berlitz, Histoire de France.

Agricultural Science.—Principles, especially chemical and botanical, and application to Canadian agriculture.

Elocution.

Drawing.—Elements of perspective, drawing from the cast and map drawing.

Music.—Instrumental music, part songs and rudiments of harmony. Intermediate Certificate of Tonic Sol-Fa College.

Practice in Teaching.—In the McGill Model Schools, as directed by the Principal.

Religious Instruction throughout the Session.

Such Students as, from their conspicuous ability and preparation, may be selected to enter the Academy Class of the Normal School, will, in addition to the work given above, read Xenophon, Anabasis, Book I., and Virgil, Æneid, Book I., with special attention to Greek and Latin Grammar.

Other Students of exceptional ability may, with the consent of the Principal and the Professors of the several subjects, choose one of the following courses of extra study :—

(*a*) Mathematics : trigonometry.

(*b*) Old English.

(*c*) French : classiques françaises, composition et grammaire.

(*d*) Drawing : water-color.

(*e*) Music : violin.

In addition to the text-books named above, each Student of the Model School Class must be provided with an Arithmetic, an Algebra, a Euclid, and Dawson's Scientific Agriculture.

3. ACADEMY CLASS, STUDYING FOR THE ACADEMY DIPLOMA.

Will follow two years the course of McGill University and its affiliated colleges, or that of Bishop's College, Lennoxville, being enrolled on the books of the Normal School, and receiving a bursary from the Normal School, not exceeding $30 per annum, and such tutorial assistance as may be deemed necessary. Such Students must take in their courses such options only as are approved by the Principal of the Normal School.

The course for the current year in McGill College, for first year Students, is :—

Greek.—Homer, Iliad, Book XXII. Zenophon, Hellenics, Book I. Studies in History and Literature.

Latin.—Cicero, De Amicitia. Virgil, Æneid, Bks. II. and III.—Translation at sight. Studies in History and Literature. Latin Prose Composition.

Mathematics.—Arithmetic. Euclid, six books. Algebra to end of Quadratic Equations. Plane Trigonometry, in part.

English Language and Literature.—First term. English Composition, one lecture a week ; English Literature, two lectures a week.

Second term.—Milton's Comus, one lecture a week. English Literature, in continuation of previous course, two lectures a week. The whole course will present an outline of English Literature from the Anglo-Saxon period to the Elizabethan inclusive.

The course for second year Students is :—

Greek.—Plato, Apology. Æschylus, Prometheus Vinctus. History of Greece

Latin.—Horace, Epistles, Bk. I., 1, 2 and 6. Livy, Bk. XXI. Translation at sight, and Latin Prose Composition.

Mathematics.—Arithmetic, Euclid, Algebra and Trigonometry as before. Logarithms. Plane Trigonometry, including solution of triangles and applications.

Mathematical Physics.—Mechanics, one lecture a week.

English Literature.—A period of English Literature and one play of Shakspere. During the session of 1893-94 : The leading poets of the nineteenth century. Shakspere, A Midsummer Night's Dream. Tennyson, Gareth and Lynette.

Psychology and Logic.—First Term, Elementary Psychology (*Text-Book :* Murray's Handbook of Psychology, book I). Second Term, Logic (*Text-Book :*—Jevon's Elementary Lessons in Logic).

French.—Ponsard, l'Honneur et l'Argent. Racine, Esther. Contanseau, Précis de Littérature Française depuis son origine jusqu'à la fin du XVIIIe siècle, Translation into French :—Dr. Johnson, Rasselas. Dictation. Parsing. Colloquial exercises.

The course in Bishop's College for the current year is :—

Greek.—Euripides, Hippolytus ; Xenophon, Memorabilia III.

Latin.—Horace, Odes II ; Cicero, pro Roscio.

English.—Rhetoric and Grammatical Analysis, with a course of Lectures on English Literature.

History.—Greek and Roman.

French.—Translation, Grammar and Composition.

Mathematics.—Euclid, Books I., II., III., IV., VI. and XI. Algebra to Progressions. Arithmetic.

Physics.—Balfour Stewart's Elementary.

SYLLABUS OF LECTURES ON PEDAGOGY.

(Open to Graduates and Undergraduates.)

The Legal Position of the Teacher.

1. The organization of Public Instruction in Quebec. 2. The relation of the teacher to the Department of Public Instruction and to the Protestant Committee of the Council of Public Instruction. 3. The relation of the teacher to school commissioners and parents. 4. The relation of the teacher to pupils. 5. The teacher as a member of a profession.

Discipline.

6. Discipline as a means of immediate pleasure to pupils. 7. Discipline as tending to school success. 8. Discipline as a preparation for life. 9. Discipline developing character. 10. Discipline enforced by authority.

Instruction in Special Subjects.

11. English reading, writing, grammar. 12. Literature, composition. 13 French. 14. The classics. 15. Number ; arithmetic and algebra. 16. Form ; geometry. Number and form ; trigonometry and mensuration. 17. Geography and history. 18. Botany and chemistry. 19. Drawing and music. 20. The acquisition of general knowledge.

Physical Development.

21. Health. 22. Growth. 23. The training of the eye. 24. The training of the ear. 25. The training of the hand.

Mental Development.

26. The training of the analytic faculty. 27. Observation and experiment. 28 The training of the synthetic faculty. 29. Understanding. 30. Judgment and reason. 31. Invention. 32. Imagination. 33. Memory of sensations. 34. Memory of conceptions. 35. Verbal memory.

MORAL DEVELOPMENT.

36. Training in truthfulness. 37. In justice and purity. 38. In philanthropy and patriotism. 39. In earnestness. 40. In good manners.

MODEL SCHOOLS OF THE McGILL NORMAL SCHOOL.

Boys' School—Orrin Rexford, B.Sc., *Head Master*.

Elizabeth Reid,
Elizabeth Pehlemann, } *Assistants*.

Girls' School.—Mary J. Peebles, *Head Mistress*.

Lillie L. Orr,
Ida Roulston, } *Assistants*.

Primary School—Lucy H. Derick, *Head Mistress*.

Annie L. Woodington,
Clara L. Douglas, } *Assistants*.
Louise Derick, *Kindergarten*.

These Schools can accommodate about 400 pupils, are supplied with the best furniture and apparatus, and conducted on the most modern methods of teaching. They receive pupils from the age of four and upwards, and give a thorough English education. Fees: Boys' and Girls' Model Schools $1.00 to $1.50 per month; Primary School and Kindergarten, 75c.; payable monthly in advance.

University School Examinations.

1894.

FOR CERTIFICATES OF THE UNIVERSITIES AND THE TITLE OF ASSOCIATE IN ARTS.

HELD UNDER THE SUPERINTENDENCE OF MCGILL UNIVERSITY, MONTREAL, AND THE UNIVERSITY OF BISHOP'S COLLEGE, LENNOXVILLE; AND RECOGNIZED BY THE PROTESTANT COMMITTEE OF THE COUNCIL OF PUBLIC INSTRUCTION.

These Examinations are held in Montreal and at Lennoxville; and local centres may be appointed elsewhere on application to the Principal of either University, accompanied with the names of satisfactory Deputy Examiners, and guarantee for the payment of necessary expenses.

The Examinations are open to Boys or Girls from any Canadian school.

PART I.—ORDINARY A.A.

SUBJECTS OF EXAMINATION.

I. PRELIMINARY SUBJECTS.

Writing.
English Dictation.
English Grammar, including easy Analysis.
Arithmetic (all the ordinary rules, including Square Root and a knowledge of the Metric System).
Geography (acquaintance with the maps of each of the four continents, and of British North America).
British History and *Canadian History.*
New Testament History *(Gospels and Acts, as in Maclear).

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* Candidates will be exempted from examination in this subject only if their parents or guardians make written objection thereto.

II. Optional Subjects.

Section 1.—Languages.

Latin :—

Caesar.—Bell. Gall., Bk. I.
Virgil.—Aeneid, Bk. I.
Latin Grammar and Prose Composition (Collar's Practical Latin Composition, Part III, Book I., or an equivalent). — 200 marks

Greek :—

Xenophon.—Anabasis, Bk. I.
Homer.—Iliad, Bk. IV.
Greek Grammar. — 200 do

French :—

Grammar and Dictation.
Darey's Lectures Françaises (selected extracts).
Re translation, English into French. — 100 do

German :—

Grammar,
Adler's Reader, Sections I. and II.
Translation from German into English. — 100 do

Section 2.—Mathematics.

Geometry :—

Euclid, I., II., III., with easy Deductions ..... 100 do

Algebra :—

Elementary Rules, Involution, Evolution, Fractions, Indices, Surds, Simple and Quadratic Equations of one or more unknown quantities. — 100 do

Plane Trigonometry :—

(As in Hamblin-Smith, pp. 1-100 omitting Ch. XI). — 100 do

Section 3.—English.

The English Language :—

Meiklejohn's English Language, Pts. I., II., III.
Trench's Study of Words. — 100 do

English Literature :—

Meiklejohn's English Language, Pt. IV.
Shakspere, Julius Caesar.
Scott's Lady of the Lake. — 100 do

History.—(As in Primers of Greece and Rome, and Collier's Great Events ..... 100 marks

Geography.—Physical, Political and Commercial ..... 100 do

Section 4.—Natural and Physical Sciences, etc.

Zoology (as in Nicholson's Introductory Text-Book) ..... 100 do

*Botany** (as in Spotton's High School Botany, with Penhallow's Guide to the Collection of Plants, and Blanks for Plant Descriptions†) ..... 100 do

Chemistry (as in Remsen's Elements of Chemistry, pp. 1 to 160). 100 do

Physiology and Hygiene (as in Cutter's Intermediate) ..... 100 do

Physics (as in Gage and Fessenden's High School Physics, Chapters I., II., III.) ..... 100 do

Geometrical and Freehand Drawing ..... 100 do

Geometrical.—Vere Foster R^1 and R^2, also problems 119 to 129 of R^3.

Freehand.—Rules of Perspective, Drawing from the object (as in the Dominion Freehand Drawing books, numbers 1 to 5, inclusive).

REGULATIONS.

1. To obtain the Certificate of Associate in Arts, Candidates must pass in all the Preliminary subjects, and also in any six of the Optional subjects, provided that the six include one subject at least from each of the four Sections.

2. In addition to the six Optional subjects selected for passing, Candidates may take other Optional subjects, but the total possible number of marks obtainable in all the Optional subjects chosen must not exceed 1000.

3. Candidates will not be considered as having passed in any subject, unless they have obtained at least 40 per cent. of the total number of marks obtainable in that subject ‡

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* In connection with the Botany examination, marks will be given for collections of mounted specimens made in accordance with Penhallow's Guide to the Collection of Plants. The Head Teacher of each school will forward with the answers a specimen from each pupil's collection, and also (on a furnished form) a detailed statement as to the collections made. Not more than 50 specimens will be expected to constitute a collection, and marks may be allowed *pro rata* for fewer.

† These Blanks may be obtained from booksellers in Montreal or elsewhere.

‡ When *two or more books or subjects are prescribed for one examination it is necessary to pass in each.* Candidates will not be allowed to pass in the Preliminary Grammar, unless they show a satisfactory knowledge of Syntax (Parsing, Analysis, and questions connected therewith). In Classics, at least one-third of the marks allotted to grammar must be obtained.

4. The total number of marks gained by every Candidate in the Optional subjects shall be added up, and the Candidates arranged in order of merit in a printed list at the close of the Examination, those who are over 18 years of age on the first day of June being in a separate list. The marks in any subject shall not be counted if the Candidate has obtained less than 40 per cent. in that subject.

5. Candidates who obtain at least 67 per cent. of the marks in any Optional subject shall be considered as having answered creditably in that subject, and special mention of the same will be made in the Associate in Arts Certificate.

6. Candidates who pass in the subjects of the University Matriculation Examinations may, without further examination, enter the Faculties of Arts and Applied Science. (See Note 2 *infra*.)

7. Candidates who fail, or who may be prevented by illness from completing their examination, may come up at the next examination without extra fee.

8. Candidates who pass in all the Preliminary subjects may, at any subsequent examination, take the Optional subjects only, and without extra fee.

9. The Head Master or Mistress of each school must certify to the character and ages of the pupils sent up for examination.

10. The examinations will begin on Monday, June 4th, at 9 a.m.

11. Lists of the names, ages, and Optional subjects to be taken by the Candidates, together with a fee of $4 for each Candidate, must be transmitted to the Secretary, McGill University, Montreal, on or before May 1st. (Blank forms and copies of the regulations will be furnished on application.)

Extracts from Darey's Lectures Françaises, for the examination of 1894.

Extracts beginning on pp. 10, 13, 15, 20, 32, 33, 37, 42, 47, 51, 56, 63, 68, 74, 76, 85, 87, 92, 94, 99, 103, 110, 118, 125, 129, 133, 144, 149, 151, 156, 158, 162, 166, 169, 176, 179, 182, 196, 215.

NOTE 1.—No fees will be exacted for the examination of pupils of Academies under the control of the Protestant Committee; but in order to obtain the certificate from the Universities, the prescribed fee, viz., $4 must be paid to the Secretary of the University Examiners.

Candidates who pass Grade II of the Academy Course of Study will be exempted from the Preliminary Subjects of the A.A. Examination.

The complete regulations of the Protestant Committee of the Council of Public Instruction with reference to these examinations may be obtained on application to the English Secretary, Department of Public Instruction, Quebec.

NOTE 2.—MATRICULATION SUBJECTS REFERRED TO IN REG. 6.

In Arts.—Greek, Latin, Geometry, Algebra, Arithmetic, English Dictation, English Grammar, British History. (Women may substitute French for Greek.)

In Applied Science.—Geometry (Euclid, Bks. I. to IV., VI., and definitions of Bk. V.), Algebra, Trigonometry, Arithmetic, English Dictation, English Grammar, British History.

After entrance in Arts or Applied Science, French or German must be studied. In the former subject an entrance examination is required, but may be passed either in June or in September; Candidates who are unable to pass must study German after entrance. Women who o uit Greek must pass the entrance examination in French, and afterwards study both French and German. (In 1895 and afterwards, women must pass in Greek or German.)

[Matriculation Examinations are also held at the opening of the University Session in September. See Calendars of the Universities.]

PART II.—ADVANCED A.A.

SUBJECTS OF EXAMINATION.

I. PRELIMINARY SUBJECTS.

As under Part I.

II. OPTIONAL SUBJECTS.

Section I.—Languages.

Latin :—

Virgil.—Aeneid, I.

Cicero.—In Catilinam, I. and II.

Grammar, Prose Composition (Collar's Practical Latin Composition, Parts III. and IV.), and Translation at sight from Caesar and Nepos.

Greek :—

Xenophon.—Anabasis, I. and II.

Homer.—Iliad, IV., and Odyssey, VII.

Grammar and Prose Composition (Abbott's Arnold's Greek Prose Composition, Exercises 1 to 25).

French :—

Lamartine, Jeanne d'Arc.

Molière, Le Bourgeois gentilhomme.

Translation at sight from French into English, and from English into French.

Grammar and Dictation.

German :—

Lessing, Emilia Galotti.

Schiller, Der Kampf mit dem Drachen.

Grammar and translation from English into German.

Section 2.—Mathematics.

Geometry :—

Euclid, Bks. I to IV., Defins. of Bk. V., Bk. VI.

Algebra :—

To the end of Progressions.

Trigonometry :—

As in Hamblin Smith (the whole).

Section 3.—English.

The English Language :—

Lounsbury's History of the English Language.
Mason's English Grammar.
A composition.

English Literature :—

Meiklejohn's English Language, Pt. IV.
The Elizabethan Period (Morley's First Sketch).
Milton's Paradise Lost, Bks. I and II.

History :—

Grecian History.—The Persian and Peloponnesian Wars.
Roman History.—From the Wars of Marius and Sulla to the death of Tiberius.
English History.—The Reformation and Puritan England, as in Green's Short History.

Section 4 —Natural and Physical Sciences, etc.

Botany.—Gray's Text-Book.

General Morphology and Classification, Determination of Canadian species, exclusive of Thallophytes. Distribution of Orders represented in Canada.

Credit will be given for collections of plants as under Part I.

Chemistry.—Inorganic, as in Remsen's Elements.

Also, an examination in Practical Work (to be held only in Montreal and at Lennoxville).

Physics.—As in Gage and Fessenden's High School Physics.

Also, an examination in Practical Work (to be held only in Montreal and at Lennoxville).

Drawing.—Orthographic Projection, including Simple Penetrations, Developments and Sections, as in Davidson's Orthographic Projection.

REGULATIONS.

The Regulations of Part I., with the following modifications and additions, will apply to the advanced subjects :—

1. Candidates who pass in six of the advanced subjects (including one at least from each of the four Sections) will receive an Advanced A.A. certificate. The number of marks given to each subject will be the same as in Part I., and additional advanced subjects may be taken as in Reg. 2, Part I.

2. Candidates who fail in one or more of the subjects required for the advanced A.A. may, on the recommendation of the Examiners, be given an ordinary A.A. certificate.

3. The examinations in the advanced subjects will be held at the same time and in the same manner as those in the ordinary subjects. They will be open to all who have already passed in the preliminary subjects, whether they have taken the ordinary A. A. or not. The preliminary subjects must be taken either one or two years before the advanced subjects.

4. Candidates who pass the advanced examinations in Greek, Latin, Geometry, Algebra, and English Language* shall be considered as having passed the Higher Matriculation Examination of the First year in Arts, McGill University.

5. Candidates must, before May 1st, give notice of intention to present themselves for the examination, specifying the optional subjects in which they wish to be examined.

6. The ordinary fee of $4.00 must be paid before taking the preliminary subjects, and an additional fee of $10.00 at the time of making application for the advanced examinations. † A Candidate who fails to pass the Advanced A.A. Examination shall be required to pay a fee of $5 for every subsequent Advanced A.A. Examination at which he may present himself.

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* French as in Part I, Note 2.

† Candidates from Academies under the control of the Protestant Committee of the Council of Public Instruction are exempt from the former fee, but not from the latter.

LIST

OF

SUCCESSFUL CANDIDATES

STANDING IN THE EXAMINATIONS, 1893.

ADVANCED ASSOCIATES IN ARTS.

No.		Marks.
43.	Malcolm McKay (Collegiate Institute, Montreal),	584
64.	William Chubb (High School, St. Johns),	486

ASSOCIATES IN ARTS.

I. Under 18 years of age.

No.		Marks.
110.	John Bruce (Huntingdon Academy),	937
1.	John Wainwright Bell (High School, Montreal),	915
2.	John George Browne (High School, Montreal),	901
13.	Clarence Thomson (High School, Montreal),	853
46.	Helen Redpath (Trafalgar Institute, Montreal),	849
6.	Harold Ernest Ker (High School, Montreal),	839
67.	David Walter Munn (High School, Quebec),	835
38.	Andrew R. McMaster (Collegiate Institute, Montreal),	801
39.	James Norris (Collegiate Institute, Montreal),	791
25.	Janet I. Radford (Girls' High School, Montreal),	789
7.	Lawrence Macfarlane (High School, Montreal),	785
34.	Campbell Howard (Collegiate Institute, Montreal),	784
14.	Arthur Kingsley Trenholme (High School, Montreal),	772
11.	John Godfrey Saxe (High School, Montreal),	771
28.	Roland Campbell (Collegiate Institute, Montreal),	769
61.	Hattie A. Smith (Girls' High School, St. John, N.B.),	763
53.	Margaret L. Holden (Girls' High School, St. John, N.B.),	760
48.	Helen G. Allison (Girls' High School, St. John, N.B.),	755
22.	Naomi Molson (Girls' High School, Montreal),	750
91.	Havelock T. Lippiatt (Granby Academy),	749
26.	A. Louisa Shaw (High School, Montreal),	743
16.	Ellen Armour (Girls' High School, Montreal),	729
10.	Louis Rogalsky (High School, Montreal),	721
68.	Eleanor Bonham Girls') High School, Quebec, } equal	
104.	Mildred May Rhicard (Waterloo Academy),	710
27.	Amy Sternberg (Girls' High School, Montreal),	698
44.	Georgina Archibald (Trafalgar Institute, Montreal),	683

No.		Marks.
4.	Henri Alfred Coussirat (High School, Montreal),	670
3.	James Cayford (High School, Montreal),	669
92.	Eva R. Ross (Granby Academy),	657
42.	James Stevenson (Collegiate Institute, Montreal),	649
35.	Ashton Kerr (Collegiate Institute, Montreal),	647
85.	Charles H. Pope (St. Francis College, Richmond),	645
15.	John James Willis (High School, Montreal),	644
9	Norman Charles Pitcher (High School, Montreal),	643
121.	Frances Leta Hart (Cowansville Academy),	642
103.	Clara Eliza Slack (Waterloo Academy),	630
149.	Ella Victoria Jackson (Coaticook Academy),	612
159.	Charles J. Vancor (Knowlton Academy),	611
90.	Maggie McChalmers (Granby Academy),	599
24.	Bertha O'Connor (Girls' High School, Montreal),	590
100.	Kenneth Erskine (Waterloo Academy),	589
54.	Annie B. Honeywell (Girls High School, St. John, N.B.),	580
180.	Lily Ina Elliott (Lennoxville Model School),	555
167.	Georgie Henrietta Learned (Cookshire Model School),	547
62.	Lucy A. Tippett (Girls' High School, St. John, N.B.),	545
140.	Hanna W. Hills (Lachute Academy),	544
40.	Robert B. Ross (Collegiate Institute, Montreal),	539
49.	Lily A. Belyea (Girls' High School, St. John, N.B.),	530
41.	Colin K. Russel (Collegiate Institute, Montreal),	525
17.	May C. Bickerdike (Girls' High School, Montreal),	522
168.	John Robert McPhadden (Cookshire Model School),	513
33.	John R. Edwards (Collegiate Institute, Montreal),	509
185.	William Ross (Model School, Paspebiac),	507
23.	Fannie M. Murphy (Girls' High School, Montreal),	505
132.	Joseph Adam Lomas (Sherbrooke Young Men's Academy),	492
385.	James William Thompson (Clarendon Model School),	491
155.	Rupert Chamberlin (Knowlton Academy),	487
144.	Merrick A. Leet (Danville Academy),	468
127.	Nina Gertrude Hodgins (Shawville Academy),	464
102.	Ida May Pearson (Waterloo Academy),	449
45.	Kathleen Finley (Trafalgar Institute, Montreal,	445
137.	Emma E. Creswell (Lachute Academy),	441
124.	Elizabeth Bockus (Bedford Academy),	429
118.	Anna Estelle Allen (Cowansville Academy),	427
161.	Charles E. Jeakins (Hemmingford Model School),	423
184.	Theodora Christie (Model School, Paspebiac),	422
122.	Edith Carleton Hall (Cowansville Academy),	421
153.	Frederic Walter Vaughn (Coaticook Academy), } equal	416
158.	Nathaniel Scott (Knowlton Academy), }	
74.	Rodger Allen Dunlop (Stanstead Wesleyan College),	414

No.		Marks.
95.	John A. McDonald (Côte St. Antoine Academy),	412
21.	Agnes C. Hood (Girls' High School, Montreal),	396
152.	Edith Elizabeth Samson (Coaticook Academy),	394
84.	Edward R. Paterson (St. Francis College, Richmond),	376
176.	Fred. Norman McKay (Mansonville Model School),	375
142.	Ida C. Patenaude (Lachute Academy),	369
57.	Grace A. Paisley (Girls' High School, St. John, N.B.),	356
101.	Margaret Mary Matheson (Waterloo Academy),	350
183.	Ormasinda Stevens (Lennoxville Modern School),	348
162.	Lilian F. Swanson (Waterville Model School),	345
73.	Margaret Buchanan (Stanstead Wesleyan College),	339
131.	Andrew Graham Campbell (Sherbrooke Young Men's Academy),	337
163.	Bertha Jane Castle (Sutton Model School),	335
99.	Annie Elizabeth Boothe (Waterloo Academy),	330
8.	Robert Laing Montgomery (High School, Montreal),	312
96.	Edith Jarvis (Cote St. Antoine Academy),	306
170.	Levi Thomas Miller (Cookshire Model School),	285
82.	William John Ewing (St. Francis College, Richmond),	259

II. Over 18 years of age.

114.	William McNaughton (Huntingdon Academy),	857
94.	Jennie A. Topp (Granby Academy),	746
80.	Herbert E. Whitcher (Stanstead Wesleyan College),	701
60.	Myrtle Seely (Girls' High School, St. John, N.B.),	665
182.	Louisa Sophia Stevens (Lennoxville Model School),	664
112.	Arthur Cunningham (Huntingdon Academy),	634
47.	Annie White (Trafalgar Institute, Montreal),	606
36.	Stanley McBean (Collegiate Institute, Montreal),	594
55.	Ethel H. Jarvis (Girls' High School, St. John, N.B.),	529
125.	John William Armstrong (Shawville Academy),	482
165.	Elizabeth Agnes Dobie (Cookshire Model School),	470
59.	Georgina S. Scammell (Girls' High School, St. John, N.B.),	458
113.	Eva Lewis (Huntingdon Academy),	440
63.	Martha E. Tippett (Girls' High School, St. John, N.B.),	435
98.	Christiana McKenzie (Girls' Academy, Sherbrooke),	426
139.	William B. Heeney (Lachute Academy),	415
12.	Walter Stewart (High School, Montreal),	403
181.	Jennie Dale McCulloch (Lennoxville Model School),	344
173.	Nellie Theodosia Wheeler (Cookshire Model School),	343
179.	Alberta May Willard (Marbleton Model School),	334
75.	Maud Edith Heath (Stanstead College),	319
81.	Lorne Cairnie (St. Francis College, Richmond),	287

PASSED THE PRELIMINARY SUBJECTS.

(In order of numbers).

50	51	83	128	130	186	187	194	195	197	200	202	203	204
207	210	211	215	217	219	227	228	229	230	233	237	238	239
241	243	244	245	248	249	251	256	258	260	264	267	268	270
271	275	278	281	282	284	285	288	289	291	292	293	294	296
297	299	300	301	303	304	305	307	308	309	310	311	312	386

McGILL UNIVERSITY, MONTREAL.

JUNE, 1893.

The following Candidates have passed the Examinations required for Entrance.

I. In Arts.

Allison, Helen G., St. John, N.B.
Archibald, Georgina, Cow Bay, C. B.
Armour, Helen, Montreal Q.
Belyea, Lily A., St. John, N.B.
Bockus Elizabeth, Bedford, Q.
Bonham, Eleanor, Quebec, Q.
Bowles, C. T., Ottawa, Ont.
Browne, John George, Montreal, Q.
*Bruce, John, Huntingdon, Q.
*Campbell, R., Cote St. Antoine, Q.
Chalmers, Maggie M. Granby, Q.
Coussirat, Henri Alfred, Montreal, Q.
*Cunningham, Arthur, Huntingdon, Q.
Dyke, Carroll Dana, Coaticook, Q.
Eastman, Fred. S. Chapleau, Ont.
*Edgar, Lorne, Montreal, Q.
*Edwards, Fred., Inverness, Q.
Emerson, Annie, St. John, N. B.
Erskine, Kenneth, Waterloo, Q.
Finley, Kathleen, Montreal, Q.
Fraser, Simon L., Hawkesbury, Ont.
Galt, Annie Prince, Montreal, Q.
Gibb, John W., Vancouver, B.C.
Hart, Frances Leta, Cowansville, Q.
Haughton, Chris., Reid's Mills, Ont.
Hills, Hanna W., Lachute, Q.
Holden, Margaret L., St. John, N.B.
Honeywell, Annie B., St. John, N.B.
*Howard, Campbell, Montreal, Q.
Jackson, Ella Victoria, Coaticook, Q.
Jarvis, Ethel H., St. John, N.B.
Ker, Harold Ernest, Montreal, Q.
Learned, Georgia Hen., Cookshire, Q.
Leet, Merrick A., Danville, Q.
Lewis, Eva, Huntingdon, Q.
*Lipsey, John, Inverness, Q.
Macfarlane, Lawrence, Montreal, Q.
Mallinson, S. H., Radnor Forges, Q.
Matthews, Robt., J., Ashton, Ont.
*McBean, Stanley, Montreal, Q.
McGibbon, A. A., Hawkesbury, Ont.
McLean, A. K., Berwick, Ont.
McLean, Donald, Berwick, Ont.
McLennan, A. A., Williamstown, Ont.
McLeod, Ernest E., Vancouver, B.C.
*McNaughton, Wm., Huntingdon
McPherson, John A., Lancaster, Ont.
*Munn, David Walter, Quebec.
*Norris, James, Montreal, Q.
Paisley, Grace A., St. John, N.B.
Pearson, Ida May, Waterloo, Q.
Plaisance, Percis Luvia, Cookshire, Q.
Pope, Chas. H., Sydenham Place, Q.
Radford, Janet J., Montreal, Q.
Redpath, Helen, Montreal, Q.
Rhicard, Mil. May, Waterloo, Q.
Ross, Eva R., Granby, Q.
*Rowatt, Donald, Huntingdon, Q.
*Russell, Colin K., Montreal, Q.
Saxe, John Godfrey, Montreal, Q.
Seely, Myrtle, St. John, N.B.
Shaw, A. Louisa, Montreal, Q.
Slack, Clara Eliza, Waterloo, Q.
Smith, E. J., Almonte, Ont.
Smith, Geo. Wm., Almonte, Ont.
Smith, Hattie A., St. John, N.B.
Steacy, F. W., Montreal, Q.
Sternberg, Amy, Montreal, Q.
Stevens, Louisa S., Lennoxville, Q.
*Stevenson, James, Montreal, Q.
Tippett, Lucy A., St John, N.B.
Tippett, Martha E., St. John, N.B.
Topp, Jennie A., Granby.
Trenholme, Arthur K., Montreal, Q.
Turner, Henry, Appleton, Ont.
Whitcher, Herbert E., Derby Line, Vt.
White, Annie, Montreal, Q.
Willis, John James, Montreal, Q.
Worthington, Edward, Brockville, Ont.
Wyman, Hiram B., Chute à Blondeau.

II. In Applied Science.

Aylmer, Arthur L., Montreal, Q.
Bell, John Wainwright, Montreal, Q.
Bickford, Oscar, Toronto, Ont.
Blair, David E., Chicoutimi, Q.
Cayford James, Montreal, Q.
Colson, Chas. Herbert, Montreal, Q.
Connal, Wm., Peterboro, Ont.
Desbarats, Chas. Hy. H., Montreal, Q.
Guthrie, Norman, Guelph, Ont.
Haskell, Chs. Thomson, Georgia, U.S.
Karn, Frank H., Woodstock, Ont.
Kerr, Ashton, Montreal, Q
Lippiatt Havelock T., Granby, Q
Mathewson, N. S., Pictou, N.S.
McDermot, Michael S., Montreal, Q.
McDonald, P., Pictou, N. S.
Packard, Frank L., Woodstock, Ont.
Pitcher, Norman Chs., Montreal, Q.
Rogalsky, Louis, Montreal, Q.
Shovel, Russel, Toronto, Ont.
Thompson, Clarence, Montreal, Q.

NOTE.—Candidates who have failed in one or more subjects will, if they present themselves at the opening of the session in September next, be exempted from examination in those subjects in which they have obtained at least half marks.

Successful Candidates must present themselves for enregistration to the Deans of their respective Faculties before the commencement of Lectures.

* Also in Applied Science.

STANDING IN THE OPTIONAL SUBJECTS.

[The numbers correspond with those in the preceding lists. Candidates whose numbers are in parenthesis are equal in standing. Those preceding a single asterisk have obtained at least two-thirds of the marks; those preceding a double asterisk, at least one-half; those following, at least one-third. The Schools' and Candidates' numbers are as follows: Montreal High School (Boys) 1-15 and 189-239; Montreal High School (Girls), 16-27 and 240-284, and also Nos. 386-387; Montreal Collegiate Institute, 28-43 and 285-302; Trafalgar Institute, 44-47 and 303-307; Girls' High School, St. John, N.B., 48-63; High School, St. Johns, P.Q., 64-65; High School, Quebec (Boys), 66-67; High School, Quebec (Girls), 68-69; Compton Ladies' College, 70-71 Stanstead Wesleyan College, 72-80; St. Francis College School, 81-89; Granby Academy, 90-94; Cote St. Antoine do, 95-96; Girls' Academy, Sherbrooke, 97-98; Waterloo do, 99-105; Aylmer do, 105-109; Huntingdon do, 110-116; Three Rivers do, 117; Cowansville do, 118-122; Dunham do, 123; Bedford do, 124; Shawville do, 125-130; Sherbrooke Young Men's do, 131-132; Inverness do, 133-135; Lachute do, 136-142; Danville do, 143-146; Coaticook do, 147-154; Knowlton do, 155-159; Hemmingford Model School, 160-161; Waterville Model School, 162; Sutton do, 163-164; Cookshire do, 165-173; Mansonville do, 174-177; Mystic do, 178; Marbleton do, 179; Lennoxville do, 180-183; Paspebiac do, 184-185; Bryson do, 186-187; Phillipsburg Public School, 188; Clarendon Model School, 384-385; The Misses Gairdner's School, 308-309; Miss Symmers and Miss Smith, 310-313.]

Latin.—2, 110, 53, 39, 103, (1, 48, 104), 7, (38, 46, 384), 13, 91, 61, 100, 11, (6, 25), 34, 116, (15, 26, 114), 35, 94, 14, (54, 159),* 92, (24, 52), 10, 49, 42, 90, (60, 80), 44, 133, 149, 23, 55, 148, (36, 67), 27, 28, 121, (47, 85), 41, 155, (31, 144), (4, 167), 182,** 68, 101, 176, 32, 112, (50, 156), (40, 58), 102, 161, (12, 57), (9, 95, 134, 171), (16, 84), 124, 59, (62, 152), (127, 158), 45, (120, 140), (99, 69, 132), (63, 93, 146, 157, 179), (70, 137), (17, 106), (18, 56, 113, 118, 122, 123, 145, 180).

Latin (Advanced).—64**.

Greek (Max. 200).—34, 39, 110, (2, 28), 116, 114, 6, 7, 36, 38, 67,* 14, 68, 31, (4, 133, 134), 85, 144, 11,** 42, 92, 100, 32, 112, 41, (15, 143).

Greek (Max. 150).—153, 80, 141,** 125, 131, 104.

Greek (Advanced).—43.**

French.—148, 4, (1, 46, 103), 104, (114, 116), (34, 39), (2, 91), (13, 47), (10, 67), (68, 110) (94, 98, 133, 182), 35, (6, 22), 112, (25, 80, 121, 165), 26, (61, 155, 171), (3, 48, 184), 45, (33, 44, 149),* 38, (16, 17, 120, 140, 173), (7, 27, 183), (92, 180), (15, 97, 100, 162, 185), (28, 54, 124), (40, 172, 181), (122, 169), (36, 113, 157, 159), 118, (5, 14, 84, 90, 134, 137), (11, 73), (53, 75, 138, 160, 163), 132, (66, 74, 168, 179, 385), (31, 69, 102, 158, 178),** (55, 96, 139), (85, 95, 101), (57, 117), (23, 24, 49, 87, 167), (50, 146), (52, 76, 81, 142), (62, 127), (125, 176), 144, (32, 130, 145, 164), 187, (59, 63, 131, 161), (8, 21, 41, 42, 82, 119, 186, 384), (69, 156), (9, 18, 79, 170).

French (Advanced).—43, 64.*

German.—25, 22, 27, 16, 46,* 47,** 44.

Geometry.—110, (1, 67), (7, 104), (14, 61, 114), (2, 3), (13, 116), 46, (106, 6), (28, 68), (11, 26), (80, 159), 53, 182, (10, 167), (74, 121), 103, (42, 112, 138, 148), (126, 129, 172),* (5, 87, 149), (9, 100), 48, (163, 168), (35, 72, 75, 77, 119), (22, 34, 36, 44, 55, 60, 84, 139), (33, 41, 73, 85, 91), (15, 52, 62, 89, 92, 102, 133, 164), (24, 93, 105, 175), (29, 39, 86, 127, 137, 153, 185), 94, (38, 99, 180), (120, 124), (16, 63, 90, 152, 173, 183, 385), (4, 27, 122, 125), (134, 142, 165), (49, 51, 156, 158),** (170, 176), (37, 47, 54, 140, 184), (25, 81, 82, 132, 171), (21, 30, 66, 113, 141, 147), (12, 58, 88, 131, 151, 155, 179), (31, 40, 157), (19, 32, 56, 59), 144, (45, 98, 143, 169, 174), 118, (8, 78, 154), 161, (150, 384), (95, 57, 76, 101, 177, 181).

Geometry (Advanced).—43, 64.*

Algebra.—149, (91, 110), 11, 148, (167, 180), (61, 74, 114), (2, 26, 67, 182), 126, 13, (6, 53, 92, 116, 171), (22, 151), 185, (44, 112, 168), (28, 35, 163), 46, (16, 25), 3, (1, 68, 132), (80, 113), (17, 140), 60,

(14, 184), (41, 104, 121, 133, 385), (12, 49, 62), (21, 127),* 75, 131, (4, 9, 152, 170), 63, 54, (27, 76), (7, 95), (10, 42. 77, 90, 154, 165), 20, (48, 73, 145, 183), 134, (83, 86, 172, 173), 5, (23, 47, 150), (65, 124, 153), (56, 85),** (32, 58, 93), (29, 33, 39, 57, 94, 102, 120, 144, 181), (52, 84, 98, 100, 146), (40, 139), 72, (125, 175, 176), 89, (19, 174, 177), (51, 55, 155), (34, 36), (8, 45, 71, 82, 106), 103, (15, 96), (105, 130), (141, 143).

Algebra (Advanced).—43.**

Trigonometry.—67, 35, (28, 42, 110), 1, 116, 114, 40, 133,* 39, 41, 33, 134, (34, 36), 32, 112, (13, 91), 94,** 10, 3, 9, 30.

Trigonometry (Advanced).—43,* 64.

English Language.—25, 27, 22, 46, (24. 26, 184 185),* (38, 44), 16, 60, 28, 42, (34, 48, 53), 39, 17, 19, 31,** 45, (47, 125), 18, 23, (35, 55), 103, 59,*182, 132, (49, 63, 104, 131, 180).

English Literature.—116, (13, 38, 184), 1, (53, 134, 148), 61, 22, (2, 26, 27, 48), 16, (9, 15, 28, 44, 185, (14, 34, 133), (23, 46, 67), (4, 6, 10, 11, 39, 114, 121), 7, 110, (59, 90, 94), (54, 104, 138, 140), (47, 103, 137, 168, 187), (20, 60, 165), (17, 24, 36, 102, 179, 182), (3, 73, 85, 98, 125),* (96, 101, 162), (21, 30, 35, 41, 68, 88, 149), (33, 45, 69, 144), (139, 167), (12, 18, 62, 123), (42, 80, 95, 173), (50, 51, 160, (112, 181), (92, 97, 124, 142, 180, 385), (19, 91, 164, 169, 384), 40, (55, 58, 99, 146, 186), (29, 32), (75, 81, 132, 175), (25, 154, 170), (8, 31, 49, 100, 171), (56, 106, 113, 118, 163),** (63, 83, 153, 161), (66, 79, 129, 147, 177), (76, 86, 128, 131, 176, 183), (105, 126), 119, (57, 74), (93, 127, 130), 143, 152, (122, 145), 108, 130, (65, 70, 109, 151).

English Literature (Advanced).—43,* 64.**.

History.—38, 44, 40, 67, 30, 46, 168, 159, 39,* 34, 182, (47, 97), (95, 121), (161, 384), (68, 69, 125), 179, (33, 35, 98), 59, 180, (37, 118, 128),** (29, 162, 183, 187), (158, 385), 165, (12, 122), 127, 126, 119, 45, (96, 160, 186), (123, 155, 156), (66, 181).

History (Advanced).—64.**

Zoology.—185.*

Botany.—46, 61, 19, (16, 47), (44, 56), 48, 27, (94, 159), (63, 148), (50, 60, 152), (17, 20, 25, 26, 45, 62, 154), (22, 156), (85, 116), (24, 114, 142), 150, (68, 172),* 385, 165, 55, (54, 149), (153, 155), 58, 121, (21, 69), 51, (138, 151), 70, (49, 86, 123, 124, 140, 167), 168, (88, 98),** 92, 171, (59, 104), (108, 137, 182), 23, 113, (118, 122), (147, 158), (57, 179), (99, 119), 139, 52, (90, 180), (65, 100, 103), 97, (81, 102, 160, 384).

Botany (Advanced).—64.*

Chemistry.—91, 27, 1, 159, 94, (22, 156), 13, 10, (3, 9), (16, 24), 25,* (26, 90), 157, 20, 48, 23, 29, (19, 158), 155,** (21, 60), 54, 17, 53, 8, 18, (59, 61), 82.

Physiology and Hygiene.—133, 94, 185, 167, 110, 184, (1, 2, 6, 116), (68, 114), 4, (67, 104, 149), 10, (7, 53, 80, (28, 34, 38, 144), (85, 134), (46, 172), (15, 91, 112), (103, 122, 148, 385), (42, 102, 132, 168),* (13, 14, 89, 92, 182), 95, (99, 118), (30, 36, 74, 173), (11, 84, 90, 121, 151, 384), (3, 12), (73, 96), (97, 101, 131), (142, 162), (39, 60, 106), (48, 62, 66, 143), (93, 154) (9, 41, 81, 140, 165), (100, 139, 181), 127, 137),** (82, 153), (88, 125, 159, 169, 186), (77, 138), (32, 119, 120, 152, 187), 86, (35, 37, 87), 113, 163), (155, 156, 180), (75, 98, 147, 158, 170) 78, (40, 160, 161, 164, 171), (31, 123), 146.

Drawing.—13, 16, (24, 25), 22, 19, (17, 26), 21, (1, 14, 61), 53, 11, 23, (6, 20),* 3, 141, (51, 177), (2, 10), (9, 54), 15, (129, 137), (33, 52, 140), (7, 139), 62, (58, 176), 8, 142, 4, 175, 49, (55, 138), (56, 161), 132, 97.

Physics.—80, 9, 11, 72, 77,* 74, 78, 1, (3, 6), 13, 10,** 2, 33, 14, 15, 7, 188.

Passed the University Examinations.

SESSION 1892-93.

FACULTY OF LAW.

PASSED FOR THE DEGREE OF B.C.L.

Geoffrion, Aimé, Montreal.
Davidson, Peers, B.A., Montreal.
Cameron, J. Alexander, B.A., Huntingdon, Que.
Johnson, Alexander Ronald, B.A., Montreal.
Jacobs, Samuel W., Lancaster, Ont.
Hall, Alexander Rives, B.A., Toronto.
Curran, Francis Joseph, B.A. (Manhattan, N.Y.), Montreal.
Glass, Lewis Gordon, Woodstock, N.B.
Harwood, Charles A., Vaudreuil, Que.
Hutcheson, Robert Bennett, Montreal.

FACULTY OF MEDICINE.

PASSED FOR THE DEGREE OF M.D., C.M.

(Arranged alphabetically).

Aylen, E. D., Aylmer, Que.
Blunt, H. W., Knowlton, Que.
Bostwick, W. E., Toronto, Ont.
Brown, J. A., Sarnia, Ont.
Cameron, J. D., L'Orignal, Ont.
Carroll, R. W., Stratford, Ont.
Coburn, A. D., Keswick Ridge, N.B.
Cooper, M. A., Ormstown, Que.
Deeks, W. E., B.A., Williamsburgh, O.
Dewar, T. A., Sarnia, Ont.
Dewar, G. F., New Perth, P.E.I.
Du Vernet, Edward, Gagetown, N.B.
Fleming, G. W., Chipman, N.B.
Goff, H. M., B.A., Woodville, P.E.I.
Gunter, F. B., B.A., Fredericton, N.B.
Haight, M., New Durham, Ont.
Hall, M. K., Franklin Centre, Que.
Henderson, J. A., Orangeville, Ont.
Jakes, R. W., Merrickville, Que.
Jamieson, W. H., Montreal, Que.
Lawrence, J. W., Lower Dumfries, N.B.
Lindsay, W., St. Mary's, Ont.
McArthur, A. D., Kenmore, Ont.
McKay, R. B., B.A., Toronto, Ont.
McKenzie, S. R., Hamilton, Ont.
McLennan, K., Dunvegan, Ont.
McMillan, W., Alberry Plains, P.E.I.
McMorrine, R. F., Richmond, Que.
Masten, C. H., Lacolle, Que.
Matheson, R., Cardigan, P.E.I.
Mills, W. C., Montreal, Que.
Moore, J. M., Belleville, Ont.
Phillimore, R. H., Cookshire, Que.
Rorke, R. F., St. Thomas, Ont.
Scane, J. W., Chatham, Ont.
Seguin, J. W. A., Rigaud, Que.
Semple, E. J., B.A., Montreal, Que.
Shaw, G. F., Ottawa, Ont.
Shaw, T. P., Montreal, Que.
Tomkins, J. E., Coaticooke, Que.
Walker, J. L., Montreal, Que.
Whyte, J. T., B.A., Osgoode, Ont.
Wilson, R., Montreal, Que.
Yearwood, C. A., B.A., Barbadoes, W.I.
Yates, H. B., B.A., Brantford, Ont.

Mr. T. W. Hewitson has passed all the examinations required for the degree of M.D., C.M., but is not of age. He will receive his degree on attaining his majority.

PASSED THE PRIMARY EXAMINATION.

(Arranged alphabetically.)

Anderson, D. P., New Liverpool, Que.
Anthony, X. L., Berwick, N.S.
Bailey, J. W., B.A., Northfield, Minn.
Basken, J. T., Dunraven, Ont.
Beatty, E. D., Nepean, Ont.
Bishop, C. W., Montreal, Que.
Blow, T. H., South Mountain, Ont.
Boucher, R. B., Peterboro, Ont.
Bouck, C. W., Inkerman, Ont.
Carron, F. B., Brockville, Ont.
Chapman, H., Port Elgin, Ont.
Colvin, A. R., Lethbridge, N.W.T.
Cooper, M. A., Ormstown, Que.
Commins, E., St. Stephen, N.B.
Cowie, W., B.A., Montreal, Que.
Cruikshank, A., Inverness, Que.
Day, J. L., Montreal, Que.
Davis, R. E., Fallowfield, Ont.
Feader, W. A., Iroquois, Ont.
Fox, C. H., Oxley, Ont.
Gleason, J. H., Cowansville, Que.
Grant, J. P., Pictou, N.S.
Gun, Arthur, Durham, Ont.
Hargrave, J. L., B.A., Rosedale, Man.
Hogg, L., B.A., Winnipeg, Man.
Jakes, R. W., Merrickville, Ont.
Johnston, F. E. L., Delaware, Que.
Kearns, J. F., Metcalf, Ont.
Kerry, R. A., Montreal, Que.
King, J. H., Chapman, N.B.
Knapp, H. G., B.A., Sackville, N.B.
Lambly, W. O., Ripon, Que.
Le Rossignol, W. J., B.A., Montreal, Q.
Leslie, P. C., Montreal, Que.
MacLeay, A. A., B.A., Montreal, Que.
Matheson, R., Cardigan, P.E.I.
Mason, R., Dalesville, Que.
Merrick, J. H., Merrickville, Ont.
Oliver, W., B.A., Rockburn, Que.
Phillimore, R. H., Cookshire, Que.
Price, B. S., Springfield, N.B.
Reeves, Jas., Woodstock, Ont.
Saunders, E. H., Eganville, Ont.
Scott, W. H., Owen Sound, Ont.
Sharpe, E. M., Havelock, N.B.
Slack, T. J., Waterloo, Que.
Stearns, C. N., Montreal, Que.
Spearman, F. S., Hemmingford, Que.
Tees, J., B.A., Montreal, Que.
Wickham, W. W., Summerside, P.E.I.
Whyte, J. T., B.A., Osgood, Ont.

FACULTY OF ARTS.

BACHELOR OF ARTS PROCEEDING TO THE DEGREE OF M.A. IN COURSE.

Fraser, Daniel J., B.A.
Nicholas, Albert G., B.A.
Nicholson, John A., B.A.
Walters, Henry, B.A.

ADMITTED TO THE DEGREE OF B.A., *ad eundem*.

Cameron, Waller, B.A., *Cantab.*

ADMITTED TO THE DEGREE OF LL.D. HONORIS CAUSA.

H. T. Bovey, M.A., *Cantab.*

PASSED FOR THE DEGREE OF B.A.

In Honours.

(Alphabetically arranged.)

McGILL COLLEGE.

First Rank.—Brown, James T.
Fairclough, Elizabeth M.
Gurd, Charles C.

Hickson, Joseph W. A.
Jackson, Annie L.
James, Agnes S.
Lee, Mabel.
Mansur, Charles.
Seymour, Martha.
Skeels, Albee A.
Smardon, Charlotte.

Ordinary B.A.

McGILL COLLEGE.

Class I.—Gordon, John S.
Boright, Mabel A.
Honeyman, H. A.

Class II.—Hutchison, David.
Angus, Frances R.
Farnsworth, A. H. } equal.
Mahaffy, Albert. }
McVicar, Archibald.
Millar, Edith M.
Munn, Stewart M.
Dresser, John A. } equal.
Macdonald, Jessie H. }
Internoscia, Jerome.
Sadler, Thomas A.

Class III.—Brown, Cecil L. }
Patterson, William. } equal.
Pratt, Francis. }
Donahue, William. } equal.
Townsend, William McN. }
Robertson, Albert J.
McGerrigle, J. A.
Hunt, Lovisa E.
Carmichael Saumarez. } equal.
Muir, Peter D. }
Smith, Ed. F. McL.

Aeger.—Killaly, H. M.
Aeger.—McIvor, Evander J.
Aeger.—Thompson, James.

Morrin College.

Class I.—Macadam, Margaret.
Class II.—Gale, Ethel L.
Chambers, E. J. C.
Class III.—None.

PASSED THE INTERMEDIATE EXAMINATION.

McGILL COLLEGE.

Class I.—Howard, E. Edwin.
Travis, Katharine,
McIntosh, Major, } equal.
Wilson, Margaret, }
Burnet, Arthur.
Wallace, James M.
Watson, Rosalind.

Class II.—Cameron, Susan E.
Botterell, Florence.
Whiteaves, A. Maud.
Armstrong, L. Ethel.
Craig, William W., } equal.
Watt James C., }
Keith, Neil D.
Young, Henry.
Rogers, Reginald H., } equa.
Sutherland William C., }
Seymour, Clara Gertrude.
Hickson, James C.

Class III.—Radford, Ethel S.
Armstrong, Edgar N.
Dyer, Edward O., } equal.
LeRoy, O. E., }
McIntosh, James,
Fourney, F. W.
Hanson, Albert.
Boyd, Robert S. *s*
Crombie, William J. B. *s*
Cushing, Florence E. *s*
Hopkins, M. C. *s*
Levy, Aaron. *s*
Smyth, W. Oswald. *s*
Terryberry, Arthur J. *s*
Tooke, Frederick T. *s*
Young, Stephen S. *s*

s. With supplemental examination in one subject (arranged alphabetically)

ST. FRANCIS COLLEGE.

Class III.—Fraser, H. Alice.
Paterson, W. Frederick S.

WESLEYAN COLLEGE, STANSTEAD.

Class II.—Gustin, W. A.
Lufkin, Elizabeth.

FACULTY OF APPLIED SCIENCE.

PASSED FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.

CIVIL ENGINEERING.

Louis Greenberg, Montreal.
James A. MacPhail, Orwell, P.E.I.
Leonard L. Street, B.A., Fredericton, N.B.
Thomas M. McLeod, Georgetown, P.E.I.
Arnold J. Ryan, Rouses Point, N.Y.
Alphonse M. A. Robert, Ottawa, Ont.
William A. Bowden, Richmond, Que.
James A. Stevenson, South Granby, Que.

MECHANICAL ENGINEERING.

Louis Herdt, Montreal.
David Murphy, Montreal.
Robert Claude Holman, Summerside, P.E.I.
William P. Laurie, Quebec.
John A. Burns, Montreal.
Arthur Massey, Montreal.
Lincoln Simpson, Cavendish, P.E.I.

MINING ENGINEERING.

Henri Herdt, Montreal; John H. Featherston, Montreal.

PRACTICAL CHEMISTRY.

Howard T. Barnes, Montreal.

ADMITTED TO THE DEGREE OF MASTER OF ENGINEERING.

Richard S. Lea, B.A.Sc.

ADMITTED TO THE DEGREE OF MASTER OF APPLIED SCIENCE.

John H. Antliff, B.A.Sc.

FACULTY OF VETERINARY SCIENCE.

PASSED FOR THE DEGREE OF D.V.S.

Wilfred Stanley Plaskett,
Angus Warner Tracy,
Ivan Glen Campbell,
William Clarence McGuire,
Stuart W. Thayer,
Augustus S. Cleaves,
Geo. Osborne Orr,
Epaphrodius Brainerd,
Thomas Sturrock,
Henry Bennet Dunton,
Morris Clifford Wylie,
Andrew S. Lamb,
James McDougall
Harry Ernest Denny,
Joseph Stephens.

Scholarships and Exhibitions.

SESSION 1892-93.

FACULTY OF ARTS.

I. SCHOLARSHIPS (Tenable for two years).

Year of Award.	Names of Scholars.	Subject of Examination.	Annual Value.	Founder or Donor.
1891	Brown, James T.	Mathematics.	$125	W. C. McDonald.
1891	MacIver, E. J.	Nat. Science.	125	W. C. McDonald.
1892	Smith, A.	Mathematics.	125	W. C. McDonald.
1892	Graham, A.	Nat. Science.	125	W. C. McDonald.
1892	Dickson, S. M.	Class. & Mod. Lang	120	Chas. Alexander.
1892	Dickson, E. T.	Class. & Mod. Lang	120	Miss Barb. Scott.

II. EXHIBITIONS (Tenable for one year).

NAMES OF EXHIBITIONERS.	Academic Year.	Annual Value.	Founder or Donor.
McIntosh, M.	Second	$125	W. C. McDonald.
Howard, E. E.	"	125	W. C. McDonald.
Wallace, J. M.	"	125	Geo. Hague.
*Hutchinson, Marg.	First	100	Sir Donald A. Smith.
Cole, W. G. G.	"	125	W. C. McDonald.
Snyder, Wm. A.	"	125	W. C. McDonald.
Nichols, Amy	"	120	Sir Donald A. Smith.
Saunders, F. C.	"	125	W. C. McDonald.
Hurst, Ethel	"	100	Mrs. Jane Redpath.
Robertson, J. C.	"	125	W. C. McDonald.
Scott, A.	"	125	W. C. McDonald.

A Major Mills Bursary, value $50.00, was awarded to W. G. Turner and A. R. Ross at the First Year Exhibition Examination.

* And a Sir Donald A. Smith Free Tuition.

Prizes, Honors and Standing.

SESSION 1892-93.

FACULTY OF LAW.

THIRD YEAR.

GRADUATING CLASS.

Aimé Geoffrion, Montreal; First Rank Honors and Elizabeth Torrance Gold Medal, and First Prize of $50.

Peers Davidson, B.A., Montreal; First Rank Honours and Second Prize of $25

J. Alexander Cameron, B.A., Huntingdon, Que.; First Rank Honours and Prize of $25. for Thesis.

Alexander Ronald Johnson, B.A., Montreal; First Rank Honours.

Samuel W. Jacobs, Lancaster, Ont.; First Rank Honours.

Alexander Rives Hall, B.A., Toronto, Ont.; First Rank Honours.

Francis Joseph Curran, B.A. (Manhattan, N.Y.), Montreal; First Rank Honours.

PASSED FOR THE DEGREE OF B.C.L.

Aimé Geoffrion, Montreal.
Peers Davidson, B.A., Montreal.
J. Alexander Cameron, B.A., Huntingdon, Que.
Alexander Ronald Johnson, B.A., Montreal.
Samuel W. Jacobs, Lancaster, Ont.
Alexander Rives Hall, B.A., Toronto.
Francis Joseph Curran, B.A. (Manhattan, N. Y.), Montreal.
Lewis Gordon Glass, Woodstock, N.B.
Charles A. Harwood, Vaudreuil, Que.
Robert Bennett Hutcheson, Montreal.

SECOND YEAR.

Gordon Walters MacDougall, B.A., Montreal; First Rank General Standing. First Prize of $50.

Arthur Hogle, Sherbrooke, Que.; First Rank General Standing, Second Prize of $25.

Arthur G. Jones, Richmond, Que.; First Rank General Standing.

Joseph Charles Walsh, B.A. (Laval), Montreal; First Rank General Standing.

William Henry Cox, B.A. (Laval), Montreal; First Rank General Standing.

PASSED THE SESSIONAL EXAMINATION.

Gordon Walters MacDougall, B.A., Montreal.
Arthur Hogle, Sherbrooke, Que.
Arthur G. Jones, Richmond, Que.
Joseph Charles Walsh, Montreal (B.A. Laval).
William Henry Cox, Montreal (B.A. Laval).
Jerome Internoscia, B.A., Bapolla, Italy.
Bannell Sawyer, Rawdon, Que.
John H. Dunlop, Montreal.

FIRST YEAR.

Robert Hugh Barron, B.A., Lachute, First Rank General Standing, and Scholarship of $100.

Albert Swindlehurst, Accrington, Lancashire, Eng.; First Rank General Standing and prize of $50.

Saumarez Carmichael, Montreal; Prize of $25.

PASSED THE SESSIONAL EXAMINATION.

Robert Hugh Barron, B.A., Lachute.
Albert Swindlehurst, Accrington, Lancashire, Eng.
Saumarez Carmichael, Montreal.
Emmanuel B. Devlin, B.A. (St. Mary's, Montreal), Aylmer, Que.
Joseph Landry, B.A. (Ottawa), St. Pierre, Co. Montmagny, Que.
John Patrick Whelan, B.A. (Laval), Montreal.
Lorenzo P. Lebeuf, Batiscan, Que.
William Patterson, Ormstown, Que.
Emil M. J. Lamoureux, St. Sebastien, Que.
Dominique Charles Gaudet, B.A. (Ottawa), Three Rivers.
Philip Sheridan, Montreal.
Etienne Maynard, St. Gregoire D'Iberville.
Narcisse A. Sauvé, Valleyfield, Que.

STANDING IN CLASSES.

CRIMINAL LAW.—Examiner, Prof. N. W. TRENHOLME, D.C.L., Q.C., DEAN of the Faculty.

Third Year.—Cameron and Davidson and Geoffrion, equal; Johnson; Curran and Hall and Jacobs, equal; Harwood, Glass, Hutcheson.

Second " Jones and MacDougall, equal; Walsh, Sawyer; Hogle and Internoscia, equal; Cox and Dunlop, equal; Ringland.

First " Swindlehurst, Barron, Gaudet; Carmichael and Devlin, equal; Lebeuf, Lamoureux; Landry and Maynard and Sauvé, equal; Whelan, Patterson, Sheridan.

ROMAN LAW.—Examiner, THE DEAN of the Faculty.

Third Year.—Cameron and Davidson and Geoffrion, equal ; Hall and Johnson, equal ; Curran and Jacobs, equal ; Glass and Harwood, equal ; Hutcheson.

Second " MacDougall, Jones, Walsh ; Hogle and Internoscia, equal ; Cox and Sawyer, equal ; Dunlop.

First " Barron, Swindlehurst ; Devlin and Landry, equal ; Patterson ; Lebeuf and Lamoureux, equal ; Carmichael and Whelan, equal ; Sauvé, Sheridan, Gaudet ; Maynard and Ringland, equal.

CONSTITUTIONAL HISTORY.—Examiner, THE DEAN of the Faculty.

Third Year.—Cameron and Curran and Davidson and Geoffrion and Jacobs and Johnson, equal ; Glass and Hall, equal ; Harwood and Hutcheson, equal.

Second " Hogle and Jones and MacDougall, equal ; Cox and Dunlop and Sawyer, equal ; Internoscia ; Sheridan and Walsh, equal ; Ringland.

First " Barron and Swindlehurst, equal ; Carmichael and Gaudet and Whelan, equal ; Landry and Patterson, equal ; Devlin ; Lebeuf and Lamoureux, equal ; Bessette and Maynard and Sauvé, equal.

OBLIGATIONS.—Examiner, THE DEAN of the Faculty.

Second Year.—MacDougall, Hogle ; Cox and Walsh, equal ; Internoscia and Jones and Sawyer, equal ; Ringland ; Dunlop and Lebeuf and Sheridan, equal.

First " Barron and Swindlehurst, equal ; Carmichael and Whelan, equal ; Devlin and Gaudet and Patterson, equal ; Landry, Lamoureux, Maynard, Sauvé.

REAL ESTATE.—Examiner, Prof. Hon. J. S. C. WURTELE, D.C.L.

Third Year.—Geoffrion, Cameron, Harwood ; Davidson and Glass, equal ; Jacobs ; Curran and Hutcheson, equal ; Hall, Johnson.

Second " MacDougall, Walsh ; Internoscia and Sawyer, equal ; Cox and Hogle, equal ; Dunlop, Jones.

First " Lebeuf, Landry, Devlin ; Barron and Swindlehurst, equal ; Patterson, Sheridan, Lamoureux, Whelan ; Maynard and Sauvé and Gaudet, equal ; Carmichael. Ringland.

LAW OF EVIDENCE.—Examiner, Prof. J. S. ARCHIBALD, D.C.L., Q.C.

Third Year.—Hall, Johnson ; Davidson and Geoffrion, equal ; Jacobs Cameron, Curran, Harwood, Glass, Hutcheson.

Second Year.—Jones, Hogle, Walsh, MacDougall, Internoscia; Cox and Sawyer, equal; Dunlop.

First " Barron, Sheridan, Swindlehurst; Carmichael and Lebeuf, and Maynard, equal; Devlin and Lamoureux, equal; Ringland, Sauvé, Whelan, Patterson, Landry, Gaudet.

CORPORATIONS AND JOINT STOCK COMPANIES.—Examiner, Prof. L. H. DAVIDSON, D.C.L., Q.C.

Third Year.—Davidson; Geoffrion and Johnson, equal; Cameron, Harwood, Hutcheson, Curran, Hall, Glass, Jacobs.

Second " McDougall, Hogle, Cox, Dunlop, Walsh, Jones, Internoscia, Sawyer.

First " Barron, Swindlehurst, Carmichael, Lamoureux; Devlin and Landry, equal; LeBeuf, Ringland; Gaudet and Maynard, equal; Sheridan, Whelan, Patterson, Sauvé.

LAW OF CONTRACTS.—Examiner, Prof. C. A. GEOFFRION, D.C.L., Q.C.

Third Year.—Johnson, Geoffrion, Curran, Cameron, Davidson, Harwood, Jacobs, Glass, Hutcheson, Hall.

Second " Internoscia, Hogle, MacDougall, Cox, Jones, Sawyer, Walsh, Lebeuf, Dunlop.

First " Barron, Carmichael, Swindlehurst, Lamoureux, Devlin, Maynard, Gaudet, Whelan; and Patterson and Ringland, equal; Sheridan, Sauvé; Landry and Bessette, equal.

BIBLIOGRAPHY.—Examiner, Prof. ARCH. MCGOUN, M.A., B.C.L.

Third Year.—Davidson, Cameron; Jacobs and Johnson, equal; Glass, Curran; Geoffrion and Hall, equal; Harwood and Hutcheson, equal.

Second " Internoscia, Walsh, Jones, McDougall; Cox and Hogle and Dunlop, equal; Sawyer.

First " Swindlehurst; Barron and Patterson, equal; Landry, Whelan; Carmichael and Sauvé, equal; Devlin, Lamoureux, Lebeuf, Maynard, Sheridan, Gaudet.

CIVIL PROCEDURE.—Examiner, Prof. Thos. FORTIN, L.L.L., D.C.L.

Third Year.—Geoffrion and Cameron, equal; Jacobs, Johnson; Davidson and Glass, equal; Curran, Hutcheson, Hall, Harwood.

Second " Hogle, Walsh, Cox, Jones; Dunlop and MacDougall, equal; Internoscia, Sawyer.

First " Barron, Carmichael, Swindlehurst, Patterson, Landry, Whelan and Sheridan, equal; Lamoureux, Maynard, Lebeuf, Devlin; Gaudet and Sauvé, equal.

NOTARIAL LAW AND PRACTICE.—Examiner, Prof. W. de M. MARLER, B.A., B.C.L.

Third Year.—Cameron, Geoffrion, Davidson, Hall, Curran, Johnson, Jacobs, Hutcheson, Glass, Harwood.

Second " Cox, MacDougall, Hogle, Internoscia, Walsh, Jones Sawyer, Dunlop.

First " Barron, Swindlehurst, Carmichæl, LeBeuf, Maynard, Lamoureux and Whelan, equal; Landry and Patterson, equal; Devlin, Gaudet, and Sauvé, equal; Sheridan.

LEASE AND HIRE.—Examiner, Prof. Hon. C. J. DOHERTY, B.C.L.

Third Year.—Geoffrion, Davidson, Hutcheson and Johnson, equal; Hall, Cameron, Glass, Jacobs, Harwood and Curran, equal.

Second " Dunlop, Jones, MacDougall and Sawyer, equal; Cox, Hogle, Internoscia, Walsh.

First " Swindlehurst and Barron, equal; Maynard, Devlin and Carmichæl, equal; Landry, Lamoureux, Sheridan, equal; Patterson, Gaudet, Sauvé and Lebeuf and Whelan, equal; Ringland.

TRADE MARKS AND PATENTS.—Examiner, Prof. HARRY ABBOTT, B.C.L.

Third Year.—Davidson, Cameron, Jacobs; Harwood and Hall, equal; Curran and Johnson, equal; Hutcheson; Glass and Geoffrion, equal.

Second " MacDougall, Walsh, Sawyer, Hogle, Cox, Dunlop Jones, Internoscia.

First " Barron, Swindlehurst, Lamoureux, Whelan, Landry, Lebeuf; Sauvé and Carmichæl, equal; Maynard, Sheridan, Patterson and Devlin and Gaudet, equal.

PRESCRIPTION.—Examiner, Professor EUGENE LAFLEUR, B.A., B.C.L.

Third Year.—Cameron; Davidson and Geoffrion, equal; Hall, Johnson, Jacobs, Hutcheson, Curran, Harwood, Glass.

Second " Jones and Walsh, equal; Hogle, Internoscia; Cox and Sawyer, equal; MacDougall, Dunlop.

First " Barron, Swindlehurst, Carmichæl, Devlin, Landry, Whelan, Lebeuf; Lamoureux and Sheridan, equal; Gaudet, Sauvé, Patterson, Maynard.

FACULTY OF MEDICINE.

MEDALS AND PRIZES.

THE HOLMES MEDAL is awarded to William Edgar Deeks, B.A., of North Williamsburg, Ontario.

THE FINAL PRIZE is awarded to John Alexander Henderson, of Orangeville, Ont.

THE PRIMARY PRIZE is awarded to W. J. Le Rossignol, B.A., of Montreal.

THE SUTHERLAND MEDAL is awarded to Walter John Le Rossignol, B.A., of Montreal.

THE CLEMESHA PRIZE is awarded to R. B. McKay, B.A.

PROFESSOR'S AND DEMONSTRATOR'S PRIZES.

THE BOTANY PRIZE is awarded to W. N. Kendrick, of Austin, Minn.

THE CLINICAL CHEMISTRY PRIZE is awarded to H. N. Goff, B.A., Woodville, P.E.I.

THE OBSTETRICS PRIZE is awarded to R. B. McKay, B.A., of Toronto.

THE SENIOR ANATOMY PRIZE is awarded to W. J. Le Rossignol, B.A., of Montreal.

THE JUNIOR ANATOMY PRIZE is awarded to Edward William Archibald, B.A.

FACULTY OF VETERINARY SCIENCE.

PRIZES.

Veterinary Medicine and Surgery—Wilfred Plaskett.

Anatomy—Cecil French.

Cattle Pathology—Wilfred Plaskett.

Cynology—equal— { M. C. Wylie. / Wilfred Plaskett.

Zoology—Wm. Ingles.

Physiology—Cecil French.

Botany—C. H. Zink, Jr.

Chemistry—Cecil French.

For the best general examination on all subjects—Wilfred Plaskett.

SCHOLARSHIPS.

For the highest aggregate obtained in first year subjects (Fifty Dollars)—C. H. Zink, Jr.

For the highest aggregate obtained in second year subjects (Fifty Dollars)—Cecil French.

EXTRA PRIZES.

For the best essay read before the Veterinary Medical Association: 1st—E. Brainerd. 2nd—M. C. Wylie. 3rd—W. S. Plaskett.

For the best essay read before the Society for the Study of Comparative Psychology: 1st—Stewart W. Thayer. 2nd—Cecil French.

FACULTY OF ARTS.

GRADUATING CLASS.

B.A. Honours in Classics.

SKEELS, ALBEE A.—First Rank Honours and Henry Chapman Gold Medal.
FAIRCLOUGH ELIZABETH M.—First Rank Honours.

B.A. Honours in Natural Science.

GURD, CHAS. C.—First Rank Honours and Logan Gold Medal.
MANSUR, CHARLES.—First Rank Honours.
LEE, MABEL.—First Rank Honours.

B.A. Honours in Mental and Moral Philosophy.

HICKSON, J. W. A.—First Rank Honours and Prince of Wales Gold Medal
BROWN, JAS. T.—First Rank Honours.

B.A. Honours in English Language, Literature and History.

JAMES, AGNES L.—First Rank Honours and Shakespeare Gold Medal.
SEYMOUR, MARTHA.—First Rank Honours.

B.A. Honours in Modern Languages, with History.

SMARDON, CHARLOTTE.—First Rank Honours and Lord Stanley Gold Medal.
JACKSON, ANNIE L.—First Rank Honours.

Special Certificates for First Rank General Standing.

GORDON, JOHN S.—Major Hiram Mills Gold Medal and Special Certificate.
BORIGHT, MABEL A.—Special Certificate.
HONEYMAN, H. A.—Special Certificate.

New Shakspere Society's Prize.

MACGREGOR, JOHN MURRAY, B.A.

COSTER MEMORIAL PRIZE.

To the Undergraduate from the Maritime Provinces who has passed the most satisfactory Sessional Examinations.

ROBERTSON, JOHN C.—*First Year.*

THIRD YEAR.

SMITH, A.—First Rank Honours and Prize in Natural Philosophy; First Rank General Standing.
DAVIS, DAVID T.—First Rank Honours in Classics; First Rank General Standing Prize in Greek; Prize in Latin.

GRAHAM, ANGUS.—First Rank Honours and Prize in Mental and Moral Philosophy; First Rank General Standing; Honourable Mention for Collection of Plants; Prize in Zoology.

MOFFATT, DAVID S.—First Rank Honours in English Literature and History.

DICKSON, SYDNEY T.—First Rank Honours in English Literature and History Prize in English and Rhetoric.

WARNER, AGNES L.—Second Rank Honours in Natural Science; First Rank General Standing; Honourable Mention for Collection of Plants; Prize in Mental Philosophy.

DAY, FRANK J.—First Rank Honours in Semitic Languages, and prize in Hebrew

BLACKETT, JOHN W.—First Rank General Standing; Prize in French.

OGILVIE, ISABELLA.—Prize in French; Prize in Zoology.

BROWN, JESSIE.—Prize for Collection of Plants.

THIRD YEAR.

PASSED THE SESSIONAL EXAMINATION.

Davis (D. T.), Graham (A.), Smith, Blackett, Warner; Moffat and Ogilvy (Isa), equal; Barlow and Day, equal; Hauran and Ogilvy (Chs.), equal; Harvey; Fraser and Garrett, equal; Stewart, Hargrave; Dickson (S. M.) and Brown, equal; Bond; Davis (E.) and Shaw, equal; Boyd and Duclos and Craig, equal; Graham, (F.) and Lambly, equal; Ireland.

SECOND YEAR.

HOWARD, E. EDWIN, (Inverness Academy, Q.).—First Rank Honours and Prize Mathematics; First Rank General Standing; Prize in Logic; Prize in English Literature.

TRAVIS, KATHARINE, (Victoria H S. St. Johns N. B.).—First Rank Genera. Standing; Prize in French; Prize in Latin; Prize in Botany.

McINTOSH, MAJOR H., (Prince of Wales Coll., P. E. I.).—First Rank General Standing; Prize in Latin Prose Composition.

WILSON, MARGARET, (McGill Normal School.).—First Rank General Standing; Prize in English Literature.

BURNET ARTHUR, (Grande Ligne Institute.)—First Rank General Standing; Prize in Greek; Prize in French.

WALLACE, JAMES M., (Kemptville H. S.).—First Rank General Standing; Prize in Botany.

WATSON, ROSALIND, (Huntingdon Academy.).—First Rank General Standing.

CAMERON, SUSAN, (Victoria H. S. St. Johns N. B.).—Prize in Logic.

KEITH, NEIL D., (Glencoe H. S.).—Prize in Hebrew.

SECOND YEAR.

PASSED THE SESSIONAL EXAMINATION.

Howard, Travis, McIntosh (M. H.), Wilson, Burnet, Wallace, Watson, Cameron Wallace, Whiteaves, Armstrong (L. E.); Craig and Watt, equal; Keith, Young (H.); Rogers and Sutherland, equal; Seymour, Hickson, Radford, Armstrong (E. N.); Dyer and LeRoy, equal; McIntosh (J.), Fourney, Hanson, Boyd *s*, Crombie *s*, Cushing *s*, Hopkins *s*, Levy *s*, Smyth, Terryberry *s*, Tooke *s*, Young (Stephen) *s*.

s.—With Supplemental Examinations in one subject (alphabetically arranged).

FIRST YEAR.

Robertson, John C., (Private Tuition).—First Rank Honours and Prize in Mathematics; First Rank General Standing.

Hutchinson, Margaret, (Coll. Ins., St. Thomas).—Second Rank Honours and Prize in Mathematics; First Rank General Standing.

Hurst, Ethel I., (M. G. H. S.).—Second Rank Honours and Prize in Mathematics; First Rank General Standing; Prize in English Literature.

Hammond, Elizabeth A., (M. G. H. S.).—First Rank General Standing; Prize in Greek; Prize in Latin.

Snyder, Wm. A., (Galt Coll. Inst.).—First Rank General Standing; Prize in Greek; Prize in Roman History.

Smiley, F. C. (St. Francis College).—First Rank General Standing; Prize in English Literature; Prize in French.

Archibald, Sam. G. (M. H. S.).—First Rank General Standing; Prize in Roman History and Literature.

Nichols, Amy W. (M.G.H.S.).—First Rank General Standing.

Henderson, Grace (Misses Symmers and Smith).—Prize in Greek Prize in Latin.

Colclough, Thos. A. (Almonte H. S., Ont.).—Prize in Hebrew

St. James, Leah (Normal School).—Prize in French.

Bates, George E.—Prizes in Hebrew

FIRST YEAR.

PASSED THE SESSIONAL EXAMINATIONS.

Robertson, Hammond, Snyder, Smiley, Hurst, Archibald, Hutchinson, Nichols, Henderson, Pitcher, Campbell, Cole, Saunders, Schwartz, Ross H.), McQuaig, Milliken, Hill, Colclough, Molson, Turner, St. James, Brown, Mitchell, Pollock, Bates (G. E.), McBurney, Watson, Walker, Chalmers Gorden, Moore, Hall, Pinder, Hinds (*s*), Krause (*s*), Locke (*s*), Scott (*s*).

(*s*) With Supplemental Examination in in one subject (arranged alphabetically).

AWARD OF SCHOLARSHIPS AND EXHIBITIONS, SEPTEMBER 1893.

I. THIRD YEAR.—SCHOLARSHIPS (tenable for two years).

Mathematial Scholarship.—*Smith, A.

Natural Science Scholarship.—*Graham, A.

Classical and Modern Language Scholarship. †Dickson, S. M. §Dickson, E. T.

II. SECOND YEAR.—EXHIBITONS (tenable for one year).

*McIntosh, M., Prince of Wales College, P.E I.

*Howard, I. E., Inverness Academy, Q.

‡Wallace, A. M., Kemptville H. S., O.

III. HIGHER ENTRANCE AND EXHIBITION EXAMINATIONS.

Class I.—†† Hutchinson, Margaret, St. Thomas Coll. Inst., O., *Exhibition.*

*Cole, W. G. G. Montreal Coll. Inst., Q., *Exhibition.*

*Snyder, Wm. A., Galt Coll. Inst., O., *Exhibition.*

§§ Nichols, Amy Montreal Girls' H. S., *Exhibition*

*Saunders, F. C., Montreal H. S., *Exhibition.*

‡‡ Hurst, Ethel, Montreal Girls' H. S., *Exhibition.*

*Robertson, J. C., Private Tuition, *Exhibition.*

*Scott, A., Monreal H. S., *Exhibition.*

**Turner, W. G, Quebec H. S., Bursary.

**Ross, A. R., Montreal Coll. Inst., Bursary.

Class II.—Schwartz H. J., Quebec H. S.

Campbell, G. A., Montreal H. S.

Edgar, McK., Montreal Coll. Inst.

Passed.—Pollock, Thos. J., Lachute Academy.

SCHOLARSHIPS AWARDED SEPTEMBER, 1891, TENABLE FOR TWO YEARS.

Name.	Subject.	Annual value.	Donor.
Brown, James T.,	Mathematics,	$125,	W. C. McDonald.
MacIver, E. J.	Nat. Science,	$125,	W. C. McDonald.

PASSED SUPPLEMENTAL EXAMINATIONS IN THE FACULTY OF ARTS.

September, 1892.

(*a*) *Supplemental Sessional.*

THIRD YEAR.—Hunt, McCoy, Muir, Smith (E.F.).

FIRST YEAR.—White.

(*b*) *Supplemental in one subject.*

SECOND YEAR.—Bond, Bremner, Fraser, Lambly, Ogilvy (C.).

FIRST YEAR.—Armstrong (E.N.), Fourney, Gilmour, Hickson, Smyth, Young (S.).

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*Annual value, $125.—Founder, W. C. McDonald, Esq.
† do. $120.—Founder, Chas. Alexander, Esq.
§ do. $120.—Founder, Miss Barbara Scott.
‡ do. $125.—Donor George Hague, Esq.
†† do. $100 and freetuition, Donor, Sir Donald A. Smith.
§§ do. $120.—Donor Sir Donald A. Smith.
‡‡ do. $100.—Founder, Mrs. Jane Redpath.
** do. $50.—Founder, Major Mills.

SESSIONAL EXAMINATIONS, 1893.

McGILL COLLEGE.

GREEK.

B.A. ORDINARY.—*Class I.*—Skeels, Fairclough; Gordon and Honeyman and Mahaffy, equal; *Class II.*—Brown (C. L.) and Farnsworth and Hutchison, equal; McGerrigle, Sadler; Dresser and Thompson, equal. *Class III.*— Patterson, Hunt, Muir; Ellicott and McCoy, equal; Robertson and Smith, equal; Brittain.

THIRD YEAR.—*Class I.*—Davis (David T.), *Prize*; Graham. *Class II.*—Dickson (Ed. H. T.); Blackett and Naylor, equal. *Class III.*—Moffat, Day, Craig, Hanran; Davis (E. A.) and Garrett, equal; Harvey and Lambly, equal; Ireland and Lewis, equal.

SECOND YEAR.—*Class I.*—Burnett (*Prize*); McIntosh (M.) and Travis, equal; Wallace, Howard, Young (H.); Seymour and Watson, equal. *Class II.*—Craig, McFarlane, Keith, Watt, Cameron. *Class III.*—Hickson, Radford, Trenholme, Armstrong (E. N.), Sutherland, Rogers, Dyer Smyth, Crombie; Fourney and Young (S.), equal; Hanson and LeRoy, equal; Levy and MacIntosh (J.), and Symmes and Terryberry, equal.

FIRST YEAR.—*Class I.*—Snyder (*Prize*); Hammond (*Prize*) and Henderson (*Prize*), equal; Archibald; Cole and Smiley, equal; Saunders, Colclough. *Class II.*—Schwartz; Brown and Ross (A.R.) and Turner, equal; Robertson, Ross (H.), McCuaig, Pollock; Molson and Scott, equal. *Class III.*—Campbell, Acer, Locke, St. James, Hurst; Chalmers and McKinnon, equal; Scrimger and Vipond, equal; Watt; Gordon and Howell and Moore and Walker, equal; Milliken; Bates (G. E.) and Lynch and Mills, equal; Mullin, Marler.

LATIN.

B.A. ORDINARY.—*Class I.*—Boright, Gordon, Fairclough, Skeels, Mahaffy, James; Honeyman and Pratt and Seymour, equal; Angus and Macadam and Townsend, equal. *Class II.*—Dresser and Donahue, equal; Chambers and Munn, equal; Gale, Millar, Macdonald. *Class III.*—Internoscia (Jerome), Brittain; Campbell and McCoy, equal McVicar.

THIRD YEAR.—*Class I.*—Davis (D. T.), (*Prize*); Blackett; Barlow and Ogilvy (Is.), equal. *Class II.*—Harvey, Duclos, Garrett, Bond, Bickerdike; Graham (F. H.) and Hanson and Hargrave, equal; Boyd and Warner, equal. *Class III.*—Ireland, Ogilvy (Ch.); Brown and Dickson (S. M.), equal; Mackenzie, Shaw, Fraser, Naylor, Craig.

SECOND YEAR.—*Class I.*—Travis (*Prize*); Burnet and Howard and McIntosh (M.), equal; Watson, Cameron, Wilson, Craig, Savage, Seymour. *Class II.*—Watt, Armstrong, Hickson, Keith; Crombie and Dyer and Levy and Radford and Trenholme, equal; Boyd and Sutherland, equal; Armstrong (E.) and Botterell, equal; Fourney and Young (H.), equal. *Class III.*—Wallace, LeRoy, Hopkins, Smith; Rogers and Whiteaves, equal; Hanson and Tooke, equal; MacIntosh (J.), Young (S.), Cushing, Weir, Terryberry.

SECOND YEAR.—(*Latin Prose Composition*).—*Class I.*—McIntosh (M.) (*Prize*), Howard, Craig; Seymour and Travis, equal; Savage and Watson and Watt, equal; Wilson; Burnett and Cameron, equal. *Class II.*—Trenholme and Young (H.), equal; Whiteaves; Dyer and Hickson, equal; MacIntosh (J.) and Radford and Rogers, equal; Boyd, LeRoy, Tooke; Botterell and Cushing, equal; Armstrong (E. N.) and Levy and Wallace, equal. *Class III.*—Keith, Armstrong (E.), Hopkins, Smyth, Terryberry, Crombie, Sutherland, McNaughton, Young (S.), Fourney.

FIRST YEAR.—*Class I.*—Henderson (*Prize*), Hammond (*Prize*), Smiley, Colclough; Hurst and Hutchinson and Snyder, equal; Nichols and Saunders and Smith (L.), equal. *Class II.*—Campbell and Schwartz, equal; Locke; Pitcher and Pollock and Robertson, equal; Turner, Watson, Cole; Archibald and Hill, equal; Molson. *Class III.*—Springle, Ross (A. R.); McBurney and Scott, equal: Brown and Mitchell and Ross (H.), equal; McKinnon and Mills, equal; Chalmers and Howell, equal; Gordon and McCuaig and Scrimger, equal; Acer, Milliken, St. James, Hinds, Pinder, Krause, Moore, Bates (C. W.), Bates (G. E.), Marler, Mullin, Walker.

ROMAN HISTORY AND LITERATURE.

FIRST YEAR.—*Class I.*—Archibald (*Prize*) and Snyder (*Prize*), equal; Nichols, Hammond and Henderson, equal; Smith (L.); Smiley and Turner, equal; Robertson, Campbell. *Class II.*—Pollock, Locke, Hurst; Cole and Pitcher, equal; Hutchinson and Ross (R.), equal; Mills and Pinder, equal; Acer and Molson, equal; St. James. *Class III.*—Patterson; Chalmers, and Douglas (R. J.) and McCuaig and Schwartz, equal; Mitchell, Scott, Walker, Colclough, Hill; Gordon and Krause and Moore, equal; McBurney and McKinnon, equal; Marler and Milliken and Scrimger, equal; Howell; Friedlander and Mullin, equal; Edgar, Bates (G. E.), Saunders, Botterell, Bates (C. E.), Benny, Brown, Hinds, Ross (A. R.), Watson.

MENTAL AND MORAL PHILOSOPHY.

B.A. ORDINARY.—*Moral Philosophy.*—*Class I.*—Boright and Hickson, equal; Mansur, Gordon, Brown (J. T.), Mahaffy, Honeyman, Millar; Angus and *Humphreys and Hutchison, equal; Pratt; *Jackson and Patterson and *Sanderson, equal. *Class II.*—Donahue and Dresser and McVicar (A.) and Robertson, equal; Farnsworth and Macdonald and *Vaughan, equal; *Grisbrook; McCoy and Munn, equal; Brittain and *McConnell and Townsend, equal; Muir, *Read; McVicar (R.) and Smith (E. F., equal; Internoscia; Hunt and Sadler, equal. *Class III.*—*Walker, *Fairbairn, Brown (C. L.), McGerrigle, Campbell (R.), *Gourlay; Ellicott and *Scott, equal.

THIRD YEAR.—(*Mental Philosophy*).—*Class I.*— Graham (A.); Dickson and *Thomas and Warner, equal; *Brown (J. L.), Moffat, Day, *Ball, *Kelly, Harvey, Davis (E. A.); *McConnell and *Sing, equal. *Class II.*—Bond

and *Calvert and Hanran, equal; Blackett and Fraser (F. C.) and *Mathers, equal; Brown (Jessie) and Stewart, equal; Bremner; Barlow and McGregor, equal *Class III.*—*Stevens, Graham (F. H.); *Ascah and *Hodgson and Ireland, equal; Duclos, *Peever, *Warden; Boyd and *Sykes, equal; Lambly, *Bethell, *Nelson.

Prizes:—Graham (A.), Warner.

SECOND YEAR.—(*Logic*).—*Class I.*—Howard, Wallace, Cameron, *Thomas; Levy and Travis, equal; *Kelly and Watt and Wilson (M.), equal; Burnet, McIntosh (M.); Watson and Young (H.), equal; Hanson and Savage, equal; Craig, Hopkins; Botterell and Crombie and Keith and Seymour and Trenholme, equal. *Class II.*—Armstrong (E. N.) and *Milliken and Radford, equal; Rogers, Cushing; Armstrong (L. E.) and Smyth and Whiteaves, equal; MacIntosh (J.); Boyd and Sutherland, equal; Hickson, Tourney. *Class III.*—McNaughton and *Sykes and Weir, equal; *Mason and Symmes and *Wilson (W.), equal; *Graham and *Wilson (A. C.) and Young (S.), equal; LeRoy, Terryberry, *McEwan; *Boshart and Tooke, equal; Dyer, *Extence; *Bethell and *Leitch, equal.

Prizes:—Howard, Cameron.

EUROPEAN HISTORY.

B. A. ORDINARY.—*Class I.*—Boright and Gordon, equal; Gurd and James and Millar and Seymour, equal; Farnsworth, Donahue and McVicar (A.), equal. *Class II.*—Hunt, Munn, Campbell, Brown, Macdonald, Internoscia, McGerrigle and Sadler and Smith and Townsend, equal; Hickson, and Patterson, equal; Dresser. *Class III.*—Mahaffy and Pratt, equal; Hutchison and Robertson, equal; Gourlay, Muir.

ENGLISH LITERATURE AND RHETORIC.

THIRD YEAR.—*Class I.*—Dickson (S. T.), Barlow and Moffatt, equal. *Class II.*—Mackenzie (J.) and Ogilvie (I.), equal; Hargreave, Ogilvy (C.) and Warner, equal. *Class III.*—Graham, Stewart, Shaw, Craig, MacKeracher, Duclos, Lewis. *Prize*, Dickson.

ENGLISH LITERATURE AND HISTORY.

SECOND YEAR.—*Class I.*—Howard and *Redpath (A.), equal; Burnet, McIntosh (M.), Wilson, Cameron, Trenholme, Armstrong (Ethel), Travis, Sutherland and Botterell, equal; Watson, Wallace. *Class II.*—Hopkins, McIntosh (J.), *Redpath (L.) and Weir, equal; Watt and Whiteaves, equal; Boyd and *Savage, equal; LeRoy, Hickson and Radford, equal; Armstrong and Craig, equal; Tooke, Keith. *Class III.*—McNaughton and Young (H.), equal; Rogers, Seymour Crombie and Fourney, equal; Hanson, Ascah, Dyer, Smyth. *Prize*, Howard and Wilson.

ENGLISH LITERATURE

FIRST YEAR.—*Class I.*—Hurst, Smiley and Pitcher, equal; Hammond, Henderson Kerr and Nicholls, equal; Archibald. *Class II.*—Campbell and Snyder, equal; Smith, Robertson, Schwartz, Ross and Saunders, equal; Norris, Cole, Locke and McCuaig, equal; Hill, Mullin. *Class III.*—Mitchell, Scrimger and St. James, equal; Hutchinson and Krause, equal; Howell and Watson, equal; *Douglas and *Millikin, equal; Brown and Denoon and *McEwan and McMartin and Molson, equal; Acer and Bates (C) and McKinnon and Springle, equal; Mills and *Walker, equal; Hinds, Colclough and McBurney and Pollock, equal; *Bates (G.) and Chalmers and Turner, equal; Pinder, Wilson, Edgar and Gordon and Moore and Marler and Wall, equal. *Prize*, Hurst and Smiley.

MECHANICS AND HYDROSTATICS.

B.A. ORDINARY.—*Class I.*—Boright, Gordon. *Class II.*—Honeyman, Brown, (C. L.), Brown (J. T.), Internoscia, McVicar (A.). *Class III.*—Farnsworth and Mahaffy, equal; Dresser, McGerrigle, Smyth (E. F.), Muir, Munn, Sadler, Macdonald, Angus, Donahue; Ellicott and Townsend and Hunt, equal; Millar.

THIRD YEAR.—*Class I.*—Smith, Blackett. *Class II.*—Hanran, Ogilvie (C.), Barlow, Stewart, Harvey, Garrett, Ogilvy (Isa). *Class III.*—Frazer; Brown and Duclos and Shaw, equal; Craig and Dickson, equal; Boyd and Bremner, equal; Ireland, McGregor, Bond, Naylor, Hargrave.

ASTRONOMY AND OPTICS.

B.A. ORDINARY.—*Class I.*—Gordon, Internoscia, Townsend. *Class II.*—McGerrigle, Dresser, Sadler, McVicar (A.). *Class III.*—Hunt, Mahaffy, McCoy, Muir.

THIRD YEAR.—*Class I.*—Smith, Blackett. *Class II.*—Garrett, Hanran, Bond. *Class III.*—None.

EXPERIMENTAL PHYSICS.

B.A. ORDINARY.—(*Electricity and Sound*).—*Class I.*—None. *Class II.*—Munn. *Class III.*—McGerrigle, Donahue, Smith (E. T.).

THIRD YEAR.—(*Light and Heat*) *Class I.*—Smith.

GEOMETRY AND ARITHMETIC.

SECOND YEAR.—*Class I.*—Rogers, Travis, Howard; Wallace and Wilson, equal; McIntosh (M.), Young (H.), Whitcaves, Sutherland; Dyer and Watson, equal; Cameron. *Class II.*—Hickson and Hopkins, equal; LeRoy, Craig; Burnett and Hanson, equal. *Class III.*—Watt, Terryberry; Boyd and Fourney, equal; Armstrong (E. N.) and Crombie and Smyth, equal; Botterell, Keith, McIntosh (J.); Young (S.) and Armstrong (L. E.), equal; Weir; McNaughton and Trenholme and Seymour, equal; Radford; Symmes and Cushing, equal; Tooke, Levey.

FIRST YEAR.—*Class I.*—Robertson, Hutchinson, Smiley, Snyder; Campbell and Sanders, equal. *Class II.*—Brown and Hammond and Watt, equal; Cole, Hurst, Molson; Nichols and Schwartz, equal; Ross (H.), McCuaig Pollock. *Class III.*—Ross (A. R.); Gordon and Pitcher, equal; Archibald and McBurney, equal; Bates (G. E.); Milliken (R.) and Moore and Walker, equal; Hill; Denoon and Scott, equal; St. James; Colclough and Henderson, equal; Edgar, Watson; Locke and Vipond, equal; Mitchell and Scrimger, equal; Botterell and Douglas (R. J.), equal; McMartin, Chalmers, Benny; Bales (C. W.) and Turner, equal; Pinder; Hinds and Krause, equal; Howell and Lynch, equal.

TRIGONOMETRY AND ALGEBRA

SECOND YEAR.—*Class I.*—Howard; McIntosh (M.), Wilson, Wallace, Travis. *Class II.*—Hickson, Whiteaves, Watson, Burnet, Young (H.). *Class III.*—Craig, Boyd, LeRoy; Dyer and Botterell, equal; McIntosh (Jas.), Rogers, Sutherland; Crombie and Terryberry, equal; Hopkins, Watt, Hanson, Keith, Radford; Fourney and Levy, equal; Armstrong (L. E.), Cameron, Armstrong (E. N.); Weir, Symmes, Young (S.), Seymour, McNaughton; Smyth and Tooke and Cushing, equal.

FIRST YEAR.—*Class I.*—Hammond and Robertson, equal; Hutchinson, Archibald, Schwartz; Cole and Ross (H.), equal; Bates (G. E.) and Sanders, equal; Campbell, Smiley, Hill, Snyder, McCuaig. *Class II.*—Pitcher; Molson and Scott, equal; Nichols, Chalmers; Brown and Mitchell and Watt, equal; Pollock and Ross (A. R.), equal; Turner and Walker, equal; Locke; Henderson and Hurst and Krause and Milliken (R.), equal. *Class III.*—Bates (C. W.) and Watson, equal; Benny; Edgar and Gordon, equal; Moore, Douglas (D. J.), Howell, McMartin; Colclough and Hinds, equal; Graham, McBurney, McKinnon, Kennedy, Pinder; St. James and Vipond, equal; Denoon; Botterell and Wainwright, equal.

HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY.

THIRD YEAR.—*First Rank Honours.*—Smith Alistair (*Prize*).

SECOND YEAR.—*First Rank Honours.*—Howard (*Prize*).

FIRST YEAR—*First Rank Honours.*—Robertson (*Prize*). *Second Rank Honours.*—Hutchinson (*Prize*). Hurst (*Prize*).

FRENCH.

FOURTH YEAR.—*Class I.*—Jackson, Smardon, Angus, Campbell, Millar, Boright. *Class II.*—Brittain, Honeyman, Lee, Brown. *Class III.*—Brown.

THIRD YEAR.—*Class I.*—Ogilvy (Isabella) *Prize*, Blacket (*Prize*), Davis. *Class II.*—Barlow, Fraser, Ogilvy (C.), Hargrave. *Class III.*—Bond and Shaw, equal; Boyd, Craig, Brown, Dickson, Lewis.

SECOND YEAR.—*Class I.*—Travis (*Prize*), Burnett (*Prize*), Botterell; Howard and *Savage, equal; Wilson, Watson; *Johnson and Whiteaves, equal; Cameron. *Class II.*—Armstrong (E.L.), Armstrong (E. N.) and Hopkins, equal; Levy, McIntosh. *Class III.*—Craig and Radford, equal; Tooke Dyer, Fourney, Humphreys; Hickson and Smyth, equal; Hanson, McNaughton, Cushing.

FIRST YEAR.—*Class I.*—*Smith, St. James (*Prize*), Smiley (*Prize*), equal; Henderson; Archibald; Hurst; Hinds, Hammond; Nichols; Krause, Ross (H.) equal; Saunders; Benny, Pitcher, Schwartz and Scott, equal. *Class II.*—McCuaig, Mitchell; Cole, Molson, equal; Campbell; Locke; Watson; Ross (A. R.); Brown, Hutchison and Scrimger, equal. *Class III.*—Hill and Turner, equal; Chalmers; Lynch; Denoon and McMartin equal; McBurney and Pollock, equal; Friedlander; Vipond; Pinder; Mills and Moore, equal; Wainwright; Acer; Patterson; Graham, Kennedy and Wilkinson, equal.

GERMAN.

B. A. ORDINARY.——*Class I.*—Smardon, Jackson, Angus.

SECOND YEAR.—*Class I.*—Wilson; Whiteaves and Botterell, equal; Armstrong, *Johnson (H.), Seymour. *Class II.*—Cushing, Levy, *Class III.* Watt, Young H., Rogers, LeRoy, Young (S.).

FIRST YEAR.—*Class I.*—Hammond, Robertson, Snyder; Nichols and Hurst, equal; McCuaig; Pitcher and Hutchinson, equal; Denoon; Locke and McBurney, equal. *Class II.*—Hill, Milliken, J. B., Krause, Mitchell, Gordon. *Class III.*—Pinder, Watson, Hobbs, Howell.

HEBREW.

ADVANCED COURSE.—*Class I.*—Day (F. J.) (*Prize*), Graham (A.), Hutchinson D. *Class II.*—Read (G. E.). *Class III.*—Robertson (A. J.), Davis (E. A.); Patterson (W.) and Pratt, equal; Bremner, McGregor (A.).

INTERMEDIATE COURSE.—*Class I.*—Keith (*Prize*), Brown (J. L.). *Class II.*—McConnell; Farnsworth and Wallace and Ball, equal. *Class III.*—Bucker, Brandt, Sutherland (W. C.); Crombie and Mathers, equal; Terryberry and Calvert, equal; Jackson (J. A.) and MacIntosh (J.), equal; Lamert and Beauchamp, equal; Weir (G.), Charles; Wilkinson and Walker (H.) and Gourlay (J. L.), equal; Boyd (R.).

ELEMENTARY COURSE.—*Class I.*—McIntosh (M.) Thomas (E.), Kelly, Bates (G. E.), (*Prize*), Humphrey (J.W.), Peevor, Colclough, (*Prize*). *Class II.*—Milliken Lambly (M. O.), Sing, Watt (R. G.); Douglas and Fairbairn, equal. *Class III.*—Walker (P. A.), Millar (D. D.), Bates (C. W.), Murray, Leitch, Graham (D. J.) and Boshart, equal; Thom; Jamieson and Extence, equal.

GEOLOGY.

FOURTH YEAR.—*Class I.*—Lee, Gurd, Boright, Mansur, Munn, Gordon, Macdonald, Vaughan, Honeyman. *Class II.*—Angus, Brittain, Sadler; Donahue and Hutchinson, equal; Mahaffy, McVicar (A.), Millar, Dresser, Robertson, Patterson, Hunt. *Class III.*—Jackson, Brown, Smith, Campbell, Walker, Pratt, Humphreys, Townsend, Thompson, Scott, Gourlay.

FOURTH YEAR.—*Additional Course.*—Macdonald.

ZOOLOGY.

THIRD YEAR.—*Class I.*—Ogilvy (I.) *Prize*, Graham (A.) *Prize*, Davis (D. T.), Hargrave, Warner, Ogilvy (C.). *Class II.*—Blackett, Moffatt, Shaw; Barlow and Thomas, equal; *Kelly and *Milliken, equal; Brown; Fraser and Garrett, equal; Craig and McGregor, equal; *Miller (D. D.); Boyd and Bremner and Harry and Mackenzie, equal. *Class III.*—Hanran, Day, *Wilkinson; *Buker and Ireland, equal; *Bethell and Duclos and *Humphrey, equal; Stewart, Davis (E. A.), Dickson; *Leitch and *Sykes, equal; Lambly and *Wilson, equal; *Ascah, Bond, Graham (D. J.), Mackeracher and *Waterson, equal; *Culp and Naylor, equal; *McCuaig; Bickerdike and Graham (F. N.), equal.

*Partials.

BOTANY.

SECOND YEAR.— *Class I.*—Travis (*Prize*); Armstrong, (L. E.); Watson; Wallace, (*Prize*); Cameron; MacIntosh, (M. H.; Wilson and White* equal; Botterell and Keith, equal; McNaughton; Burnet; Radford; Sutherland. *Class II.*—Rogers and Watt, equal; Seymour; Crombie; Cushing and Boyd, equal; Tooke. *Class III.*—Armstrong, (E. N.); Craig, Dyer, Fo irney, Hanson, Hickson, Hopkins, LeRoy, Levy, MacIntosh, (Jas.), Symmes, Terryberry, Trenholme, Weir, Whiteaves, Young, (Hy.), Young, (Stephen.)

THIRD YEAR.—*Class I.*—Warner; Binmore*.

CHEMISTRY.

FIRST YEAR.—*Class.*—Robertson (*Prize*) and Snyder (*Prize*), equal; Archibald. *Class II.*—Hammond; Hurst and St. James, equal; Turner, Cole, Hutchinson. *Class III.*—Ross (H.) and Saunders, equal; Campbell and Humphrey and Nichols and Pitcher, equal; McMartin and Scott and Sing, equal; Colclough; Benny and Shwartz and Smiley, equal; Mathers, McConnell and Milliken, equal; Howell, Fairbairn; Jackson and Patterson and Henderson, equal; Walker and Hill, equal; Watt; McKinnon and Molson and Moore and Brown, equal; Mitchell, Shaw, Hinds, Bates (G. E.) and McBurney and McCuaig, equal; Pollock; Gordon and Kennedy and Springle and Chalmers and Pinder and Watson, equal.

PRACTICAL CHEMISTRY.

Class I.—Radford (Ethel). *Class II.*—Lyman (Helen), B.A. *Class III.*—Binmore (Elizabeth), B.A.

WICKSTEED MEDALS FOR PHYSICAL CULTURE.

Silver Medal.—McGerrigle (John A.). Bronze Medal.—Young (Stephen).
Honorable Mention.—Brown (J. T.), Stevenson, Huestis.

DONALDA PRIZE FOR PHYSICAL CULTURE.

Travis (Katharine).

ELOCUTION.

Class I.—Walker (*Prize*), Keith, Weir, L. Shaw (*Prize*); Denoon and Dresser, equal. *Class II.*—LeRoy, A. Smith.

Passed (arranged alphabetically.)

Senior Year:—Dresser, Gilmour, Keith, LeRoy, Muir, Smith, Symmes, Walker, Weir,

Junior Year:—Ascot, Bremner, Connor, Denoon, Dickson, Extence, Gourlay, A. Graham, D. Graham, Grisbrook, Hanran, Ireland, McCuaig, McGregor, B.A., McIntosh, Murray, Pritchard, B.A., Rogers, E. Shaw, L. Shaw Sutherland Watson, Young.

MORRIN COLLEGE.

B.A. ORDINARY.

LATIN.—*Class I.*—Macadam. *Class II.*—Chambers, Gale.

MECHANICS AND HYDROSTATICS.—*Class II.*—Gale, Macadam. *Class III.*—Chambers, Lindsay.

ASTRONOMY AND OPTICS.—*Class I.*—Gale. *Class II.*—Chambers and Macadam equal. *Class III.*—Lindsay.

MORAL PHILOSOPHY.—*Class I.*—Gale and Macadam, equal. *Class II.*—Chambers. *Class III.*—None.

HISTORY.—*Class I.*—Macadam, Gale. *Class II.*—Chambers.

FRENCH.—*Class I.*—Macadam. *Class II.*—Gale, Chambers.

HEBREW.—*Class III.*—Lindsay.

ST. FRANCIS COLLEGE

INTERMEDIATE EXAMINATION.

GREEK.—*Class III.*—Fraser.

LATIN.—*Class III.*—Fraser, Coburn, Paterson.

LATIN PROSE COMPOSITION.—*Class II.*—Fraser, Paterson. *Class III.*—Coburn.

TRIGONOMETRY AND ALGEBRA.—*Class II.*—Paterson, Coburn. *Class III.*—Fraser.

GEOMETRY AND ARITHMETIC.—*Class II.*—Coburn. *Class III.*—Fraser, Paterson.

LOGIC.—*Class I.*—None. *Class II.*—Fraser. *Class III.*—Coburn, Paterson.

ENGLISH LITERATURE AND HISTORY.—*Class I.*—Fraser. *Class II.*—Paterson.

FRENCH.—*Class III.*—Fraser, Paterson.

STANSTEAD WESLEYAN COLLIGE.

INTERMEDIATE.

GREEK.—*Class III.*—Gustin, Lufkin.

LATIN.—*Class III.*—Gustin, Lufkin.

LATIN PROSE COMPOSITION.—*Class III.*—Gustin and Lufkin, equal.

GEOMETRY AND ARITHMETIC.—*Class I.*—Gustin and Lufkin, equal.

TRIGONOMETRY AND ALGEBRA.—*Class I.*—Gustin. *Class II.*—Lufkin.

LOGIC.—*Class I.*—Gustin. *Class II.*—Lufkin.

ENGLISH.—*Class I.*—Gustin. *Class II.*—Lufkin.

FRENCH.—*Class III.*—Gustin, Lufkin.

FACULTY OF APPLIED SCIENCE.

GRADUATING CLASS.

LOUIS GREENBERG.—British Association Gold Medal; Honours in Theory of Structures, Hydraulics, Thermodynamics, Designing and Geodesy.

JAMES A. MACPHAIL.—Stanley Silver Medal, Honours in Theory of Structures, Thermodynamics, Designing and Geodesy.

THOMAS M. MCLEOD.—Honours in Theory of Structures and Thermodynamics.

LEONARD L STREET, B.A.—Honours in Theory of Structures.

ROBERT C. HOLMAN.—Honours in Dynamics of Machinery

HENRI HERDT.—Honours in Designing and Metallurgy, Second Rank Honours in Natural Science.

JOHN H FEATHERSTON.—Second Rank Honours in Natura Science.

HOWARD T. BARNES.—Honours in Mineralogy, Metallurgy and Chemistry.

THIRD YEAR.

Frank H. Pitcher.—Prize in Experimental Physics
Henry M. Mackay, B.A.—Prizes iu Theory of Structures, and Surveying.
Joseph K. Henry, B.A.—Prizes in Mathematic, Dynamics of Machinery and Electrical Engineering.
Wm. A. Duff.—Prize in Machine Design.
Orton E. S. Whiteside.—Prize in Practical Chemistry.
Herbert Molson.—Prizes in Theoretical Chemistry, Geology and Zoology.
Alexander Brodie.—Prize for collection of plants. Prize in Mineralogy.
Edward Darling.—Prize in Michanical Drawing.

PASSED THE SESSIONAL EXAMINATION.

CIVIL ENGINEERING

Henry M. Mackay, B.A. Pictou, N.S

ELECTRICAL ENGINEERING.

Joseph Kaye Henry, B.A., Sennatt, N.Y.
Herbert Harold Shaw, Brackley Point, P.E.I.
Francis Henry Pitcher, Montreal.
Charles Henry B. Longworth, Charlottetown, P.E.I.
Arthur K. Holden, B.A., Montreal.
*John Wm. Morris, Wallace, Nova Scotia.
*Alfred Collyer, Sussex, England.

MECHANICAL ENGINEERING.

William A. Duff, Montreal.
Edward Darling, Montreal.
Leonard W. E. Dyer, Montreal.
Arthur L. Mudge, Montreal.
James S. Costigan, Montreal.
*Walter M. Scott, Charlottetown, P.E.I.
*John H. Larmonth, Ottawa Ont.

MINING ENGINEERING.

Orton E. S. Whiteside, Metcalfe, Ont.
*Arthur A. Cole, B.A., Montreal.
Frank Lambert, England.
*William W. Leach, Montreal
*Robert A. Gunn, Montreal.

*Supplemental in one subject.

PRACTICAL CHEMISTRY.

Herbert Molson, Montreal.
Alexander Brodie, Quebec.
Matthew F. Connor, Ottawa, Ont.

SECOND YEAR.

William F. Carter.—Prizes in English, French, Mapping, and Surveying.
Fred. M. Becket.—Prize in German.
Ralph B. McDunnough.—Prizes in Mathematics, Experimental Physics, and Mechanism.
Francis A. Wilkin.—Prizes in Mathematics and Surveying.
Robert O. King.—Prizes in Descriptive Geometry and Mechanical Drawing.
John C. Gwillim.—Prize in Zoology.
Henry E. Huestis.—Prize in Mapping.
Orobio C. Hart.—Prize in Zoology.

PASSED THE SESSIONAL EXAMINATION.

CIVIL ENGINEERING.

Francis Alfred Wilkin, Calgary, N.W.T.
William Frederick Carter, Cowansville, Q.
Harry Ernest Huestis, Halifax, N.S.
*Wilfrid Dougall, Montreal.

ELECTRICAL AND MECANICAL ENGINEERING.

Ralph B. McDunnough, Montreal.
Robert Owen King, Montreal.
William Currie, Montreal.
George Dewar McDougall, Amherst, N.S.
Hugh C. Baker, Montreal.
Alfred Scott, Port Hope, Ont.
Henry Richard Trenholme, Montreal Junction, Q.
Alexander R. Greig, Côte St. Antoine Q. } equal.
Sampson Paul Robins, Montreal. }
William Forrest Angus, Montreal.
Michael Edward Griffin, Georgetown, P.E.I.
Frederick Mark Becket, Montreal.
Peter McNaughton, Huntingdon, Q.
Frank Doughty Rogers, Montreal.
*George Nelson Boright, Sutton, Q.
*Edward Preston Johnson, Ottawa, Ont.
*John Primrose, Pictou, N.S.
*Thomas Francis Niven, Montreal.
*Kenneth Moodie, Chesterville, Ont.

* Supplemental in one subject.

MINING ENGINEERING.

Orobio Chandler Hart, Cowansville, Q.
John Cole Gwillim,
Charles Edy Van Barneveld, Grindstone, Magdalen Islands, Que.
*William Steele Johnson, B.A., Clapham, Que.

FIRST YEAR.

Robert H. Stewart.—Prizes in Mathematics, Descriptive Geometry, and Practical Chemistry.
Harry A. Chase.—Prize in Descriptive Geometry.
Lester W. Gill.—Prize in Descriptive Geometry.
J. S. R. Green.—Prize in French.
Thos. F. Kenny.—Prizes in German, General Chemistry, and English.
John W. Hunter.—Prize in Descriptive Geometry.

PASSED THE SESSIONAL EXAMINATION.

Robert Holden Stewart, Montreal.
Thomas Frederick Kenny, Ottawa, Ont.
Harry A. Chase, Kentville, N.S.
Lester Willis Gill, Little York, P.E.I.
George Gray Hare, St. John, N.B.
Francis Edward Courtice, Port Perry, Ont.
Charles Harvey Wright, Renfrew, Ont.
George Alexander Atkinson, Montreal.
Joseph S. R. Green, Montreal.
Henry C. Morgan, Ottawa, Ont.
Ernest Randolph Clarke, Stratford, Ont.
William Munroe Archibald, Truro, N.S.
John William Hunter, Kingston, Ont.
G. Matile Dougall, Montreal.
William McDougall, Ormstown, Q.
George Alexander Walkem, Kingston, Ont.
William Morton Webb, Petrolia, Ont.
Frank Herbert White, Montreal.
Albert Edward Smaill, Montreal.
Carl Reinhardt, Montreal.
Horace W. Mussen, Aurora, Ont.
Arthur McCallum, Maxwell, Ont.
George Laroy Huntington, Colebrook, N.S. } equal
Duncan T. McLaren, Montreal. }
*William Morley Ogilvie, Cumming's Bridge, Ont.
*James Stafford Bishop, Montreal.

* Supplemental in one subject.

*Herbert Reginald Balfour, Montreal.
Hanam Hugh Barclay, St. Andrew's East, Que.
*Thomas Ferguson, Peterboro, Ont.
Fitzherbert H. Buchanan, Montreal.

At the Examinations held at the opening of the Session, the following Exhibitions and Prizes were awarded :—

Louis Greenberg and James A. MacPhail, equal, British Association Exhibition of $50.
Joseph K. Henry, B.A., Scott Exhibition of $60.
George D. McDougall, British Association Prize of $25.
Robert O. King, British Association Prize in Chemistry.
James A. MacPhail, Peterson Prize for Summer Report.
—— ——, Greenshields Prize for Summer Report.
—— ——, Greenshields Prize for Summer Report.
Henry M. Mackay, B.A., Prize for Transit Work.
Robert A. Gunn, Prize for Transit Work.

WORKSHOP PRIZES.

Lester W. Gill and William McDougall, equal, Fleet Prize in Wood Work (open to the First Year).
Robert O. King, Peck Prize in Machine Work (open to all students of the Faculty).
Michael E. Griffin, Garth Prize in Smith Work.
Alexander R. Greig, Garth Prize of $12 in Foundry Work.
Hugh C. Baker, Garth Prize of $8 in Foundry Work.
Leonard W. E. Dyer, Drysdale Prize in Pattern Work.

DEGREE OF MASTER OF ENGINEERING.

Richard S. Lea, B.A.Sc.

DEGREE OF MASTER OF APPLIED SCIENCE.

John H. Antliff, B.A.Sc.

STANDING IN THE SEVERAL SUBJECTS.

SUMMER WORK.

FOURTH YEAR.—*Class I.*—McPhail (*Disposal of Sewage* at Marlboro, Mass.), Greenberg (*Asphalt Pavements for Streets*); Herdt (H.) (*The Paris Sewers*) and McLeod (*Cranes*), equal; Street (*The St. John Valley Ry.*). *Class II.*—Bowden (*Mill Dams*) and Murphy (*Marshall Valve Gear*) and Ryan (*Street Pavements*), equal; Herdt (L.) (*Hackworth Valve Gear*) and Laurie (*Hackworth Valve Gear*), equal; Featherston (*Phosphates of Ontario*) and Stevenson (*Agriculture*), equal; Burns (*Hackworth Valve Gear*) and Holman (*Marshall Valve Gear*), equal; Rankin (*Consummation of Smoke*); Barnes (*Dynamos and Electric Lighting*) and

*Supplemental in one subject.

Massey (*Marshall Valve Gear*), equal. *Class III.*—Robert (*Brooklyn Bridge*), Simpson (*Marshall Valve Gear*).

THIRD YEAR.—*Class I.*—Shaw (*Northumberland Straits Tunnel*) and Scott (*Planer Work*) and Whiteside (*Mining in the Ottawa District*), equal; Brodie (*May flowers in Quebec*) and Cole (*Derricks for Harbor Works*) and Connor (*Spectrum Analysis*) and Duff (*Switchwork for Toronto Street Railway*), equal. *Class II.*—Henry (*Steam Engine Indicators*) and Collyer (*Derricks for Harbour Works*) and Dyer (*Bridge Building, Practice*) and Longworth (*P. E. I. Tunnel*) and Pitcher (*Electric Bell Construction*), equal; Costigan (*Locomotives and Locomotive Works*), Darling (*Nordenbery Automatic Cut-off*). *Class III.*—Holden (*Electrical Units*) and Molson (*Aluminium*) and Lockway (*Plane-table Surveying*), equal; Mudge (*Pattern Making*), Leach (*Survey of Rainy River District*) and Morris (*Electric Heating*) and Scammell (*Plane-table Surveying*), equal; Larmonth (*Slide Valves*), Gunn (*Railroad Curves*), Lambert (*Thetford Asbestos and its Mining at Black Lake*).

DESIGNING.

FOURTH YEAR.—(Civil Eng.)—*Class I.*—Greenberg and McPhail (equal). *Class II.*—Street, McLeod, Ryan, Robert, Bowden. *Class III.*—Stevenson, Rankin.

(Mech. Eng.)—*Class I.*—Burns. *Class II.*—Herdt (L.) and Murphy, equal; Laurie. *Class III.*—Massey, Holman and Simpson, equal.

(Mining Eng.)—*Class I.*—Herdt (H.), Featherston.

MACHINE DESIGN.

FOURTH YEAR.—*Class I.*—Holman. *Class II.*—Murphy, Herdt (L.). *Class III.*—Laurie, Massey, Burns, Simpson.

THIRD YEAR.—*Class I.*—Duff. *Class II.*—Henry, Shaw. *Class III.*—Longworth, Pitcher, Darling, Holden, Dyer, Mudge, Morris; Collyer and Larmonth, equal; Costigan and Scott, equal.

MECHANICAL DRAWING.

THIRD YEAR.—*Class I.*—Darling; Morris and Collyer, equal. *Class II.*—Mudge; Costigan and Dyer, equal; Henry; Duff and Longworth and Shaw, equal. *Class III.*—Larmonth, Scott, Pitcher, Holden.

SECOND YEAR.—*Class I.*—King and Plummer, equal; McDougall, Baker, Turner. *Class II.*—Currie and Griffin, equal; Moodie, Angus, McDunnough; Coté and Robins and Trenholme, equal, McNaughton, Rogers, Becket; Johnson (E. P.) and Nivin and Primrose, equal; Blackburn, Scott, Greig, Olive, Boright, White.

DYNAMICS OF MACHINERY.

FOURTH YEAR.—*Class I.*—Holman, Herdt (L.). *Class II.*—Massey and Murphy, equal. *Class III.*—Laurie, Burns, Simpson.

THIRD YEAR.—*Class I.*—Henry; Duff and Longworth and Pitcher, equal; Darling. *Class II.*—Shaw, Holden. *Class III.*—Dyer; Costigan and Larmonth and Mudge, equal.

MECHANISM.

SECOND AND THIRD YEARS.—*Class I.*—McDunnough, Currie, Mackay, King. *Class II.*—Whiteside, Nivin, Primrose; Angus and Rogers and Baker, equal. *Class III.*—Plummer, Greig; Becket and Griffin, equal; Boright and Cole and Côté, equal; Robins; McNaughton and McDougall and Moodie, equal; Lonergan and Scott and Turner, equal; Johnson (E. P.), Trenholme, Leach, Gunn.

THERMODYNAMICS.

FOURTH YEAR.—*Class I.*—Greenberg, McLeod; Holman and McPhail, equal; Herdt (L.). *Class II.*—Murphy, Herdt (H.); Laurie and Street, equal; Bowden, Burns, Massey. *Class III.*—Ryan, Featherston; Stevenson and Simpson, equal; Rankin, Robert.

THEORY OF STRUCTURES.

FOURTH YEAR.—*Class I.*—Greenberg, McPhail. *Class II.*—Street and McLeod, equal. *Class III.*—Robert, Ryan, Stevenson, Bowden, Rankin.

THIRD YEAR.—(Civil Engineering, Mining and Mechanical Students).—*Class I.*—Mackay. *Class II.*—Darling, Dyer, Whiteside, Scammell; Duff and Lonergan, equal. *Class III.*—*Cole, Mudge *Costigan; *Leach and Scott, equal; *Lorway, *Larmonth, *Gunn, *Lambert.

THIRD YEAR.—(Electrical Students).—*Class I.*—Shaw. *Class II.*—Henry, Pitcher, Longworth, Collyer. *Class III.*—Morris, Holden.

THEORY OF STRUCTURES (*Advanced*).

FOURTH YEAR.—McPhail and Greenberg, equal; McLeod, Street.

THIRD YEAR.—Duff and Mackay, equal; Lonergan.

HYDRAULICS.

FOURTH YEAR.—*Class I.*—Greenberg. *Class II.*—Holman, Herdt (L.), Herdt (H.), McPhail; McLeod and Robert, equal. *Class III.*—Laurie, Massey, Murphy; Featherston and Ryan, equal; Street, Burns, Stevenson, Simpson, Bowden.

HYDRAULICS (*Advanced*).

FOURTH YEAR.—Greenberg, Street, McLeod, McPhail.

ELECTRICAL ENGINEERING.

THIRD YEAR.—*Class I.*—Henry, Longworth. *Class II.*—Shaw, Pitcher. *Class III.*—Collyer and Morris, equal; Barbour, Holden.

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*Supplemental in Paper II.

DESCRIPTIVE GEOMETRY.

THIRD YEAR.—*Class I.*—Mackay. *Class II.*—None. *Class III.*—Lonergan.

SECOND YEAR.—*Class I.*—King, Carter, McDunnough, Currie. *Class II.*—Baker, Wilkin; Robins and Trenholme, equal; Greig, Becket, Hart, MacNaughton; Huestis and McDougall (G. D.), equal; Metcalfe, Griffin; Primrose and Scott, equal. *Class III.*—Plummer, Angus, Gwillim Askwith. Van Barneveld; Moodie and Turner, equal; Rogers, Johnson (E. P.), Dougall.

FIRST YEAR.—*Class I.*—Chase and Gill and Hunter and Stewart, equal; Wright, Courtice, White, Hare; Morgan and Kenny, equal; Archibald, Mussen. *Class II.*—Girdwood, Clarke; Walkem and Ogilvie, equal; McDougall (W.), Green, McLaren, Barclay; Webb and Smail and Rutherford (G.) and Reinhardt and Dougall (G.M.), equal; Atkinson, Bayfield, Sise, Haycock. *Class III.*—Huntington, Bishop, Balfour, McCallum, Rutherford (S.), McKenzie (C. A.), Ferguson, Alley.

GEODESY AND PRACTICAL ASTRONOMY.

FOURTH YEAR.—*Class I.*—Macphail and Greenberg, equal. *Class II.*—Street and McLeod, equal; Ryan, Rankin. *Class III.*—Stevenson, Bowden, Robert

SURVEYING.

THIRD YEAR.—*Class I.*—Mackay. *Class II.*—Whiteside, Cole, Gunn. *Class III.*—Adams and Leach, equal; Lorway, Scammell, Lambert, Lonergan.

SECOND YEAR.—*Class I.*—Adams; Wilkin and Carter, equal; Huestis, Balloch Gwillim, Hart. *Class II.*—Askwith, Dougall, Johnson, Metcalfe, Van Barneveld.

FREEHAND DRAWING.

FIRST YEAR.—*Class I.*—Bayfield, Stewart; Mussen and Clarke, equal. *Class II.*—Webb and Morgan, equal; Reinhardt, Balfour, Holland, Alley, Bishop, Haycock and Chase, equal; Kenny; Barclay and Gill and Hunter equal; Atkinson and Dougall and Ogilvie and Mackie, equal; Smaill; McLaren and White, equal; Ferguson and Green and Sise and Rutherford (S. F.) and Walkem, equal; Rutherford (G.) and Courtice, equal; Wright and Archibald, equal; Manson and Loeb, equal; Reid and Hare, equal; McCallum. *Class III.*—Cunningham; Weldon and McDougall, equal; Mill, Huntington.

MAPPING.

FIRST YEAR.—*Class I.*—Bayfield and Girdwood, equal; Reinhardt, Gill, Wright Chase and Weldon, equal; Stewart, Morgan; Mackie and Mussen, equal *Class II.*—Huntington, Webb, Smaill, Clarke, Hare, Rutherford (S.) Kenny and Purves and Reid, equal; Holland and Hunter, equal; Archibald and Ogilvie, equal; Balfour and Dougall and Ferguson and Manson, equal; McDougall and Atkinson and Cunningham, equal; Mc-

Murchy and Weldon, equal; Green, Haycock; Bishop and Sise, equal; Walkem; Courtice and Mill and McLaren, equal; *Class III.*—Alley, Loeb, Rutherford (G.), McCallum.

SECOND YEAR.—*Class I.*—Carter and Huestis, equal. *Class II.*—Adams and Wilkin, equal; Dougall; Buchanan and Balloch, equal; Askwith and Hart and Gwillim, equal; Metcalfe and Van Barneveld and Johnson (W. S.), equal.

THIRD YEAR.—*Class II.*—Lonergan, Scammell, Mackay, Lorway.

ESSAYS.

FOURTH YEAR.—(*Civil Engineering*).—*Class I.*—Greenberg, Macphail. *Class II.*—Bowden and Street, equal; Rankin, Ryan, Stevenson. *Class III.*—Robert, McLeod. (*Mechanical Engineering*).—*Class I.*—None. *Class II.*—Holman and Laurie and Murphy, equal; Burns and Herdt (L.) equal. *Class III.*—Massey, Simpson.
(*Mining*).—*Class I.*—Herdt (H.), Featherston.
(*Chemistry*).—*Class I.*—Burns.

THIRD YEAR.—(*Civil Engineering*).—*Class I.*—Mackay. *Class II.*—Lorway, Scammell, Lonergan. (*Electrical Engineering*).—*Class I.*—Pitcher, Longworth, Morris, Holden, Henry, Shaw. *Class II.*—Collyer. (*Mechanical Engineering.*)—*Class I.*—None. *Class II.*—Darling. (*Mining Engineering*).—*Class I.*—Côté and Connor and Gwillim, equal. *Class II.*—Whiteside; Leach and Gunn, equal; Lambert. (*Practical Chemistry*).—*Class I.*—Molson and Brodie, equal.

SECOND YEAR.—*Class I.*—Carter and Wilkin, equal; Gwillim and Huestis equal; Blackburn and Hart, equal. *Class II.*—Balloch; King and McDunnough, equal; Greig and Nivin and Van Barneveld, equal; Angus and Askwith and Becket and Currie and Griffin and Metcalfe and Turner and Primrose, equal. *Class III.*—Baker and Boright and McDougall and McNaughton and Rogers, equal; Plummer and Robins and Trenholme, equal; Côté and Johnson (E. P.) and Moodie and Johnson (W. S.) and Scott, equal; Olive; Dougall and White, equal.

METALLURGY.

FOURTH YEAR.—*Class I.*—Herdt (H.), Barnes. *Class II.*—Featherston.

MINING.

THIRD YEAR.—*Class I.*—Cole, Lambert. *Class II.*—Whiteside and Leach, equal; Adams, Gunn.

MINERALOGY.

FOURTH YEAR.—(*Mining*).—*Class II.*—Herdt (H.), Featherston.

FOURTH YEAR.—(*Practical Chemistry*).—*Class I*—Barnes.

CHEMISTRY (*General*).

THIRD YEAR.—(*Chemistry Course*).—*Class I.*—Molson, Brodie. *Class II.*—Connor.

FIRST YEAR.—*Class I.*—Kenny; Atkinson and Stewart, equal; Archibald and Gill and Green, equal. *Class II.*—Hare and Morgan, equal; Chase, Courtice, Dougall, McDougall; Smaill and White, equal; Clarke and Wright, equal; Reinhardt. *Class III.*—Huntington, Mussen, Manson, McCallum, Walkem, Buchanan, Webb, Hunter, Mackie; Barclay and McLaren, equal; Ferguson, Ogilvie.

CHEMISTRY (*Practical*).

FOURTH YEAR.—(*Chemistry Course*).—*Class I.*—Barnes.

THIRD YEAR.—(*Chemistry Course*).—*Class I.*—Molson, Brodie, Connor. (*Mining Course*).—*Class II.*—Whiteside, Cole. *Class III.*—Leach, Gunn, Lambert.

SECOND YEAR.—(*Mining Course*)—*Class I.*—None. *Class II.*—Van Barneveld, Gwillim, Hart, Wilkin, Johnson. *Class III.*—Metcalfe.

FIRST YEAR.—*Class I.*—Stewart, Kenny, Greene; Atkinson and Wright, equal; McDougall, Clarke, Dougall; Hare and Smaill and Webb, equal; Chase and Courtice, equal. *Class II.*—White; McCallum and Manson, equal; Gill, Reinhardt, Bishop, Huntington, Ferguson, Walkem, Rutherford (G.), Archibald, Hunter; Balfour and Rutherford (S. F.), equal; Ogilvie, McLaren, Reid. *Class III.*—Sise; Barclay and Mussen, equal; Buchanan; Bayfield and Mackie and Mill and Morgan, equal.

CHEMISTRY (*Inorganic*).

FOURTH YEAR.—(*Chemistry Course*).—*Class I.*—Barnes.

CHEMISTRY (*Organic*).

FOURTH YEAR.—(*Chemistry Course*)—*Class I.*—Barnes.

DYNAMICS OF MACHINERY.

FOURTH YEAR.—*Class I.*—Holman, Herdt (L). *Class II.*—Massey and Murphy, equal. *Class III.*—Laurie, Burns, Simpson.

THIRD YEAR.—*Class I.*—Henry; Duff and Longworth and Pitcher, equal; Darling. *Class II.*—Shaw, Holden. *Class III.*—Dyer; Costigan and Larmonth and Mudge, equal.

ASSAYING.

FOURTH YEAR.—*Class II.*—Featherston, Herdt (H).

MINERALOGY (*Advanced*).

THIRD YEAR.—*Class I.*—Brodie. *Class II.*—Molson; Connor and Whiteside, equal; Leach, Cole. *Class III.*—Gunn (Supplemental in Theoretical part).

GEOLOGY.

FOURTH YEAR.—*Class II.*—Herdt (H.), Featherston, Adams.

GEOLOGY.

THIRD AND FOURTH YEARS.—*Class I.*—Molson, Barnes, Whiteside. *Class II.*—Connor, Leach, Mackay. *Class III.*—Gunn, Lonergan, (*Aeg.*) Brodie.

ZOOLOGY.

SECOND AND THIRD YEARS.—*Class I.*—Molson, Brodie; Gwillim and Hart, equal; Carter. *Class II.*—Huestis, Connor, Van Barneveld, Wilkin. *Class III.*—Johnson (W. S.), Dougall (W.), Askwith.

MATHEMATICS.

THIRD YEAR.—*Class I.*—Henry, Mackay; Duff and Pitcher, equal: Holden, Shaw. *Class II.*—Darling, Whiteside. *Class III.*—Morris; Longworth and Mudge, equal; Collyer* and Dyer, equal; Costigan, Scott.

SECOND YEAR.—*Class I.*—McDunnough and Wilkin, equal; King; Carter and McDougall (G.), equal. *Class II.*—Scott (A.), Huestis; Currie and Hart, equal; Trenholme, Baker, Angus, Gwillim. *Class III.*—Adams, Griffin, Boright, Dougall (W.); Greig and McNaughton, equal; Rogers, Niven, Metcalfe; Blackburn* and Robins, equal; Van Barneveld* Johnson (E. P.)*, Becket.‡

FIRST YEAR.—*Class I.*—Stewart, Chase, Kenny, Dougall (G.). *Class II.*—Hare, Gill, Courtice, Atkinson, Archibald, Morgan, Clarke, Wright, Greene, Walkem, Hunter. *Class III.*—Webb, McDougall (W.), McLaren, Buchanan; Bishop† and Ogilvie* and Rutherford (S.)* equal; Barclay,* Rutherford (G.)*, Reinhardt, McCallum, Smaill †; Balfour and Huntington, equal; Mussen, White, Bayfield.

* To pass Supplemental in Mechanics.
† " " " " Algebra.
‡ " " " " Calculus.

EXPERIMENTAL PHYSICS.

THIRD YEAR.—*Class I.*—Pitcher, Molson, Mackay, Longworth, Morris; Duff and Holden, equal; Henry, Shaw, Brodie. *Class II.*—Mudge; Connor and Dyer, equal; Collyer, Costigan. *Class III.*—Whiteside, Darling; Larmonth and Scott, equal; Gunn, Leach, Scammell, Lonergan.

SECOND YEAR.—*Class I.*—McDunnough; Carter and King, equal; Wilkin, Robins. *Class II.*—Currie, Greig, Boright, Huestis. *Class III.*—Askwith, Scott, White, McDougall, Rogers, Gwillim, Balloch; Angus and Van Barneveld and Blackburn and McNaughton, equal; Becket and Metcalfe, equal; Plummer; Hart and Primrose, equal; Coté and Johnson (W.S.) and Moodie, equal; Griffin, Trenholme, Baker, Niven.

ENGLISH LANGUAGE AND LITERATURE.

FIRST YEAR.—*Class I.*—Kerny, Chase, Atkinson, Courtice; Green and Archibald, equal; McDougall (W.) and Stewart, equal. *Class II.*—Gill and Hare, equal; Ferguson, Clarke; McCallum and Huntington, equal; Walkem, Morgan *Class III.*—Smaill and Manson, equal; Dougall (G.M.); Alley and Balfour and Hunter and Wright, equal; Holland and Mackie, equal; Mussen, Sise; McLaren and Bishop and Webb, equal; Haycock and White and Bayfield, equal; Reinhardt, Mill; Ramsay and Cunningham, equal.

SECOND YEAR.—*Class I.*—Carter, Gwillim, King; McDunnough and Van Barneveld and Huestis, equal, Wilkin, Plummer. *Class II.*—Coté and Currie, equal; Hart, Becket, Askwith, White, Boright, Griffin. *Class III.*—Blackburn, Balloch, McDougall; McNaughton and Metcalfe, equal; Angus and Trenholme, equal; Greig, Robins, Niven; Primrose and Moodie, equal; Dougall, Scott, Johnson, Baker, Rogers.

FRENCH.

SECOND YEAR.—*Class I.*—Carter, McDunnough. *Class II.*—Currie, Coté, Van Barneveld, King, Huestis. *Class III.*—Hart, Angus, White, Robins, Trenholme, McNaughton, McDougall, Boright.

FIRST YEAR.—*Class I.*—Green, Wright, Stewart (R.H.). *Class II.*—Clarke, Gill, Atkinson. *Class III.*—Hare, Webb, Chase, Barclay, White, Smaill, Balfour, Mill, Rutherford (G.S.), Reinhardt, Sise.

GERMAN

SECOND YEAR.—*Class I.*—Becket, Gwillim. *Class II.*—Johnson (E. P.), Wilkin, Rogers, Scott; Greig and Primrose, equal. *Class III.*—Niven; Moodie and Griffin, equal; McDougall, Askwith, Blackburn, Baker.

FIRST YEAR.—*Class I.*—Kenny, Courtice. *Class II.*—McDougall, Walkem, Manson, McCallum, Hunter, Morgan, Archibald, McLaren, Bishop. *Class III.*—Mussen, Haycock; Ferguson and Ogilvie, equal; Reid and Huntington, equal; Buchanan.

LABORATORY WORK.

FOURTH YEAR —(*Testing Laboratory.*) *Class I.*—Greenberg and MacPhail equal; Street, Ryan. *Class II.*—McLeod, Robert, Stevenson. *Class, III.*—Bowden, Rankin.

FOURTH YEAR.—*Cement Testing Laboratory, Civil and Mechanical Students. Class I.*—MacPhail, Greenberg, Street, McLeod, Burns, Herdt (L.), Ryan. *Class II.*—Murphy, Massey, Robert, Laurie, Holman, Stevenson. *Class III.*—Bowden, Simpson, Rankin.

FOURTH YEAR.—(*Cement Testing Laboratory, Mining Students*). *Class I.*—Herdt (H.), Featherston.

FOURTH YEAR.—(*Thermodynamic Laboratory*). *Class I.*—Murphy. *Class II.*—Burns and Laurie, equal; Herdt (L.) and Holman, equal. *Class III.*—Massey, Simpson.

FOURTH YEAR.—(*Geodetic Laboratory and Astronomical Work.*) *Class I.*—Greenberg. *Class II.*—Street, MacPhail, McLeod. *Class III.*—Rankin, Stevenson, Bowden, Ryan.

THIRD YEAR.—(*Testing Laboratory.*) *Class I.*—Mackay. *Class II.*—Lonergan, Scammell. *Class III.*—Lorway.

THIRD YEAR.—(*Cement Testing Laboratory.*) *Class I.*—Mackay, Dyer, Mudge, Shaw; Henry and Pitcher and Darling and Costigan and Longworth and Morris, equal. *Class II.*—Scammell, Scott, Colyer. *Class III.*—Holden, Lorway, Larmonth.

WORKSHOPS.

FOURTH YEAR.—(Mechanical). *Class I.*—Murphy, Laurie. *Class II.*—Burns, Simpson, Herdt (L.), Massey, Holman.

THIRD YEAR.—(Mechanical and Electrical). *Class I.*—Dyer, Costigan, Darling Shaw; Colyer and Larmonth, equal. *Class II.*—Scott, Mudge Duff, Henry. *Class III.*—Morris; Longworth and Holden, equal.

THIRD YEAR.—(Civil). *Class I.*—None. *Class II.*—Mackay, Lonergan.

SECOND YEAR.—(Mechanical and Electrical). *Class I.*—Griffin, King, Coté; Greig and McDunnough, equal; Boright; Currie and Robins, equal; Johnson (E. P.), Baker; McNaughton and Scott, equal; Moodie, Blackburn, Olive; Rodgers and White, equal; McDougall; Niven and Primrose, equal; Becket, Trenholme. *Class II.*—Angus, Plummer, Turner.

SECOND YEAR.—(Civil and Mining). *Class I.*—Huestis, Carter, Balloch, Wilkin. *Class II.*—Johnson (W. S.), Metcalf. *Class III.*—Hart, Gwillim Askwith and Van Barneveld, equal; Dougall (W.).

FIRST YEAR.—*Class I.*—Gill, Hunter, McDougall, Wright, Morgan, Girdwood, Haycock. *Class II.*—Holland and Mackie, equal; Stewart, McKay, Clark and Mill, equal; Buchanan and Huntington, equal; Reinhardt; Chase and Lafrenaye, equal; Bayfield and Kenny and Weldon and White, equal; Atkinson and Dougall (G.) and McMurchy, equal; Tylee and Walkem, equal. *Class III.*—Purves and Smaill, equal; Barclay, Mussen, Rutherford (G. S.), Killaly; Hare and Loeb and Ogilvie and Reid and Rutherford (S. F.) and Webb, equal; Archibald and Bishop and Ferguson and McCallum, equal; Fairman and Green, equal; Riley, Courtice; Merritt and McLaren, equal; Sise, Balfour, St. George (*aegrot*), Jones.

Students of the University.

SESSION 1892-93.

McGILL COLLEGE.

FACULTY OF LAW.

FIRST YEAR.

Barron, Robert H., B.A.,	Lachute, Q.	Maynard, Etienne,	St. Gregoire, Ib., Q
Carmichael, Saumarez,	Montreal	Patterson, Wm.,	Ormstown, Q.
Devlin, Emm. B.,	Aylmer, Q.	Sauvé, Narc. Albert,	Valleyfield, Q.
Gaudet, Dom. Chas.,	Three Rivers, Q.	Sheridan, Philip,	Montreal
Lamoureux, E. M. J.,	St. Sebastian, Q.	Swindlehurst, Albert,	Accrington, Eng.
Landry, J.,	St. Pierre, Montmagny, Q.	Whelan, John P.,	Montreal
Lebeuf, Lorenzo P.,	Batiscan, Q.		

SECOND YEAR.

Cox, Wm. Hy., B.A., (Laval)	Montreal	Jones, Arthur Geo.,	Richmond, Q.
Dunlop, John H.,	Montreal	MacDougall, Gordon W.,	Rawdon, Q.
Hogle, Arthur,	Sherbrooke, Q.	Sawyer, Baunell,	Rawdon, Q.
Internoscia, Jerome,	Bapolla, Italy	Walsh, J. Chas., B.A. (Laval),	Montreal

THIRD YEAR.

Cameron, J. Alex., B.A.,	Huntingdon, Q.	Hall, Alex. Rives, B.A.,	Toronto, O.
Curran, Francis Jos., B.A.,	Montreal	Harwood, Chas. Aug.,	Vaudreuil, Q.
Davidson, Peers, B.A.,	Montreal	Hutcheson, Rbt. Bennett,	Montreal
Geoffrion Aimé,	Montreal	Jacobs, Sam. W.,	Lancaster, O.
Glass, Lewis Gordon,	Woodstock, N.B.	Johnson, Alex. Ronald, B.A.,	Montreal

PARTIAL AND OCCASIONAL.

Bessette, Wilfrid,	Mt. Johnson, Q.	O'Leary, Emil,	Montreal
Ogilvie, Douglas W.,	Montreal	Ringland, Jos.,	Shanagan, Co. Down, Ireland.

FACULTY OF MEDICINE.

FIRST YEAR.

Archibald, E. W., B.A., Montreal
Argue, J. F., Carp, O.
Barclay, J., Montreal
Barry, Fred., Montreal
Birkett, F. W., Ottawa, O.
Bonnell, S., North Sydney, N.S.
Braithwaite, J. M., Montreal
Brown, W. K., Quebec
Brunelle, P., Lowell, Mass.
Bullard, C., Boston, Mass.
Campbell, E. J., Carnduff, Assa.
Church, C. H., Montreal
Church, J. M., Aylmer, Q.
Church, H. M., Montreal
Clendinning, S. L., Brighton, O.
Colquhoun, P., B.A., Colquhoun, O.
Corbett, F. A., B.A., Parrsboro, N.S.
Craig, R. H., Montreal
Curran, T. J., Montreal
Deacon, G. R., Stratford, O.
Dean, W. E., Toronto, O.
Denny, H. E., Montreal
Donahoe, M., Cardigan Bridge, P.E.I.
Douglas, J. A., Chatham, O.
Draper, A. L., Vancouver, B.C.
Drum, A., B.A., Quebec
Duckett, F., Montreal
Dunbar, W. R., New Glasgow, N.S.
Dyer, A., Montreal
Edwards, A. F., Thurso, Q.
Ellis, G. H., Dundela, O.
Elliott, F. B., Mayfair, O.
Fairie, A. F., Montreal
Ferguson, J. A., Smith's Falls, O.
Ferguson, W. R., Niagara Falls, O.
Ferguson, J. B., Kemptville, O.
Findlay, C., Hamilton, O.
Fish, E. C., Newcastle, N.B.
Fisk, W. M., Abbotsford, Q
Fraser, H. B., B.A., Westmeath, O.
Fyfe, John, Mount Forest, O.
Gilday, F. W., Montreal
Grant, D., Picton, N.S.
Grant, A. J., Pembroke, O.
Healey, D. J., Sault Ste. Marie, O.
Hogan, E. V., B.A., Weymouth, N.S.
Howell, W. B., Montreal
Irvine, A. D., Montreal
Jack, A. C., Montreal
Jackson, F. S., Montreal
Kelly, J. K., Almonte, O.
Kemp, H. G., Brighton, O.
Kendrick, W. H., Austin, Minn.
Lauder, S. E., Durham, Q.
Lee, F. J., Port Hope, O.
Lynch, D. P., Chapeau, Q.
MacCartney, F. W., Montreal
Macauley, J. J. F., River Dennis, N.S.
McAlister, D. H., Belle Isle, N.B.
McArthur, A. W., Williamstown, O.
McConnell, H. C., Lachute, Q.
McEwen, D., St. Elmo, O.
McDonald, H. K., Pictou, N.S.
McLeod, N. D., Montreal
McPherson, D., Montreal
McTaggart, D. D., Montreal
Martin, R. H., Chatham, O.
Milburn, J. A., Peterboro', O.
Mitchell, R. J. W., B.A., Montreal
Moffatt, W. A., Ormstown, Q.
Morse, L. R., B.A., Laurencetown, N.B.
O'Brien, Thos. J., Montreal
Palmer, A. J., Buckingham, Q.
Patrick, D., Montreal
Peake, E. P., B.A., Fredericton, N.B.
Poussette, W. C., Peterboro', O.
Prescott, A. H., Queensburg, N.B.
Rea, W., Huntingdon, Q.
Robins, G. D., B.A., Montreal
Ross, R. O., B.A., N.E. Margaree, N.S.
Secord, J. H., Summerside, P.E.I.
Scott, W. T., Montreal
Shaw, R. B., Covestead, P.E.I.
Smillie, Wm., Huntingdon, Q.
Smith, R. E. G., Woodstock, N.B.
Smith, H. A., N. Sydney, C.B.
Smyth, W., B.A., Montreal
Steeves, C. P., B.A., L. Coverdale, N.B.
Stackhouse, O. C. S., Lachute, Q.
Sterling, A., Fredericton, N.B.
Staples, C. A., Stillwater, Minn.
Tetreau, T., Laurence, Mass.
Tracy, A. W., Sherbrooke, Q.
Trudeau, M. A., Henryville, Q.
Tupper, T. S., Fredericton, N.B.
Underwood, C. R., N. Glasgow, N.S.
Warne, W. A., B.A., Eastman, Q.
Warren, J. F., Harper, O.
Wheeler, F. H., Florenceville, N.B.
Whyte, R. B., Pembroke, O.
Wood, W. S., Faribault, Q.

SECOND YEAR.

Alexander, C. C., Fredericton, N.B.
Allen, J. H., B.A., West Osgoode, O.
Anthony L. X., Berwick, N.S.
Anderson, D. P., B.A., N. Liverpool, Q.
Bailey, J. W., B.A., Northfield, Minn.
Basken, J. T., Dunrobin, O.

Baird, J.,	St. Paul, Minn.
Beattie, E. D.,	Nepean, Q.
Bishop, C. W.,	Montreal
Blow, T. H.,	South Mountain, O.
Boucher, R. B.,	Peterboro', O.
Bouck, C. W.,	Inkerman, O.
Brown, G. T.,	Cantley, Q.
Burfield, J. C.,	Toronto, O.
Carron, F. B.,	Brockville, O.
Chapman, H.,	Port Elgin, N.B.
Church, A. H.,	Montreal
Commins, E.,	St. Stephen, N.B.
Converse, R. D.,	Washington, D.C.
Cowie, W., B.A.,	Montreal
Cruikshank, A.,	Inverness, Q.
Day, J. L., B.A.,	Montreal
Ewan, R. B.,	Montreal
Feader, W. A.,	Iroquois, O.
Foss, A. F.,	Sherbrooke, Q.
Fox, C. H.,	Oxley, O.
Fraser, A. D.,	Hawkesbury, O.
Gallant, C. St. G.,	Charlotteto'n, P.E.I.
Gardner, J. G.,	Montreal
Garrett, L.,	Montreal
Gleason, J. H.,	Cowansville, Q
Grant, J. P.,	New Glasgow, N.S.
Gun, A.,	Durham, O.
Gunn, W. T.,	Montreal
Hamilton, R.,	Bright, O.
Hargrave, J. L., B.A.,	Rosedale, Man.
Harwood, R. de L.,	Vaudreuil, Q.
Hogg, L., B.A.,	London, O.
Hogle, J. H.,	Montreal
Hughson, E. R.,	Blenheim, O.
Johnson, M. H.,	Madoc, O.
Johnson, F. E.,	Delaware, O.
Keith, H. W.,	Havelock, N.S.
Kerry, R. A.,	Montreal
King, J. H.,	Chipman, N.B.
Knapp, H. T.,	Sackville, N.B.
Lambly, W. D.,	Inverness, Q.
LeRossignol, W. J.,	Montreal
Leslie, P. C.,	Montreal
Link, D. A.,	Gravenhurst, O.
Lovejoy, G. S.,	Montreal
McDermott, J. W.,	Egansville, O.
McLeay, K. L.,	Montreal
McLean, A. A.,	Danville, Q.
McKinnon, N.,	Park Hill, O.
McNally, G. J., Up.	Kingsclear, N.B.
McGannon, A. V.,	Brockville, O.
Mallock, N.,	Kenmore, O.
Mason, R.,	Dalesville, Q.
May, G. F.,	Montreal
Merrick, G. H.,	Merrickville, O.
Mowatt, W.,	Montreal
Neill, R. W.,	Aylmer, Q.
Oliver, W.,	Rockburn, Q.
Oliver, G. W.,	Montreal
Oppenheimer, S. S.,	Vancouver, B.C.
Patrick, D.,	Montreal
Phelps, S. E.,	Montreal
Price, B. S.,	Springfield, N.B.
Proctor, A. P.,	Alberni, B.C.
Quay, D. D.,	Port Hope, O.
Ragotte, E. C. F.,	Montreal
Reilley, W. G.,	Ottawa, O.
Robertson, J. E.,	Morrisburg, Q.
Russell, R. H.,	Quebec
Ryan, E. J.,	St. Kitts, N.W.T.
Ryan, J. P.,	Portage la Prairie, Man.
St. Pierre, A. D.,	Ripon, Q.
Saunders, E.,	Woodstock, O.
Scammell, J. H.,	St. John, N.B.
Shaw, H. M.,	Berwick, N.S.
Spearman, F. S.,	Hemmingford, Q.
Slack, T. J.,	Waterloo, Q.
Smith, A. D.,	New York
Smith, R. A.,	Durham, O.
Smith, S. R. B.,	Brighton, O.
Tees, J. S., B.A.,	Montreal
Thomson, F. L.,	Mitchell, O.
Vipond, C. W.,	Montreal
Walker, D. F.,	Huntingdon, Q.
Watson, J. H.,	Barbadoes, W.I.
Wickham, W. W.,	Summerside, P.E.I.
Williams, J. A.,	Carleton Place, O.
Wood, D. M.,	Kenmore, O.
Wright, H. K.,	Montreal

THIRD YEAR.

Ault, C. R.,	Tilsonburg, O.
Bazin, A. T.,	Montreal
Byers, W. G. M.,	Gananoque, O.
Campbell, R. M.,	Montreal
Colvin, A. R.,	Lethbridge, N.W.T.
Conner, W.,	Minneapolis, Minn.
Crocket, A. P.,	Fredericton, N.B.
Davidson, A.,	Burns, O.
Davis, R. E.,	Fallowfield, O.
Drysdale, W. F.,	Perth, O.
Evans, J. W.,	Hull, Q.
Flinn, J. W.,	Wallace, N.S.
Fowler, E. S.,	Hudson, Wis.
Fry, F. M.,	Montreal
Gilman, F. M.,	Tusket, N.S.
Goltman, A.,	Montreal
Gorrell, C. W. F.,	Brockville, O.
Hamilton, G.,	Bright, O.
Hannington, J. P.,	Montreal
Hart, E. C.,	Baddeck, N.B.
Henderson, W.,	Dickinson, O.
Holohan, P. A., B.A.,	Newcastle, N.B.
Hepburn, C.,	Montreal
Irving, E.,	Pembroke, O.

Jacques, H. M.,	Upper Dyke, N.S.
Kearns, J. F.,	Metcalfe, O.
Kinghorn, H. McL., B.A.,	Montreal
Lauterman, M.,	Montreal
MacCarthy, G. S.,	Ottawa, O.
McRea, J. J.,	Laggan, O.
McLaren, J. T.,	Belle Creek, P.E.I.
McLaughlin, J. A.,	Avonmore, O.
MacLean, C. M.,	Cambridge, N.B.
McIntosh, L. Y.,	Strathmore, O.
McKenzie, L. F.,	Montreal
Macrae, G. B.,	Montreal
Manchester, G. H.,	Ottawa
Mathewson, G. H., B.A.,	Montreal
Meikle, R. H.,	Lachute, Q.
Mitchell, W.,	Lachute, Q.
Montgomery, T. E.,	Phillipsburg, Q.
Nicholls, A. G., B.A,	Montreal
O'Connor, E. J.,	Ottawa, O.
Pritchard, J., B.A.,	N. Wakefield, O.
Quirk, R. McG.,	Montreal
Reeves, James,	Eganville, O.
Richardson, A.,	South March, O.
Richardson, H. J.,	Chesterville, O.
Rimer, F. E.,	Bryson, Q.
Robertson, A. A.,	Montreal
Ross, D. W.,	Peel, N.B.
Ross, H.,	Thorburn, N.S.
Ross, J. J.,	Dewitville, Q.
Seaton, J. S.,	St. John, N.B.
Sharp, E. M.,	Havelock, N.B.
Shaw, H. S.,	Montreal
Shillington, A. T.,	Kemptville, O.
Spring-Rice, T. A.,	Montreal
Stearns, C. N.,	Montreal
Stenning, W. A.,	Coaticook, Q.
Summers, A. A.,	Aultsville, O.
Walsh, A. W.,	Huntingdon, Q.
Watson, R. L.,	Montreal
Whyte, J. T.,	Montreal
Wolf, C. G. L.,	Winnipeg, Man.
York, H. E.,	Metcalfe, O.

FOURTH YEAR.

Akerley, A. W. K.,	Fredericton, N.B.
Aylen, E. D.,	Aylmer, Q.
Barrett, H. H.,	Three Rivers, Q.
Blunt, H. W.,	Knowlton, Q.
Bostwick, W. E.,	Montreal
Brown, J. A.,	Sarnia, O.
Cameron, J. D.,	L'Orignal, O.
Carroll, R. W.,	Stratford, O.
Coburn, A. D.,	Keswick Ridge, N.B.
Cooper, M. A.,	Ormstown, Q.
Deeks, W. E.,	Montreal
Dewar, T. A.,	Sarnia, O.
Dewar, G. F.,	New Perth, P.E.I.
DuVernet, E.,	Gagetown, N.B.
Ellis, W. L.,	St. John, N.B.
Esty, A. S.,	Keswick Ridge, N.B.
Flemming, G. W.,	Chipman, N.B.
Feron, F. M.,	Montreal
Fulton, C.,	Avonmore, O.
Goff, H. N, B.A.,	Woodville, P.E.I.
Gunter, F. B., B.A.,	Fredericton, N.B.
Haight, M.,	New Durham, O.
Hall, M. K.,	Franklin Centre, Q.
Henderson, J. A.,	Orangeville, O.
Hewitson, S. W.,	Montreal
Hume, G. W.,	Leeds, Q.
Internoscia, A.,	Montreal
Jakes, R. W.,	Merrickville, O.
Jamieson, W. H.,	Montreal
Lambly, W. O.,	Montreal
Lawrence, J. W.,	Lower Dumfries, N.B.
Lewis, J. T.,	Hillsboro', O.
Lindsay, W.,	St. Mary's, O.
McArthur, A. D.,	Kenmore, O.
MacKay, R. B., B.A.,	Toronto, O.
McKenzie, R. J.,	Melbourne, O.
McKenzie, S. R.,	Montreal
McLennan, K.,	Dunvegan, O.
McMillan, W.,	Alberry Plains, P.E.I.
McMorine, R. F.,	Richmond, Q.
Masten, C.,	Lacolle, Q.
Matheson, R.,	Cardigan, P.E.I.
Mills, W. C.,	Montreal
Morris, F. X.,	Fairville, N.B.
Moore, J. M.,	Belleville, O.
Ogden, C. L.,	Warrenburg, N.Y.
Parker, G. W.,	Cardigan, P.E.I.
Phillimore, R. H.,	Cookshire, Q.
Robinson, H. J.,	Brockville, O.
Rodger, D. A.,	Genoa, Q.
Rorke, R. F.,	St. Thomas, O.
Séguin, J. W. A.,	Rigaud, Q.
Scammell, J. H.,	St. John, N.B.
Scane, J. W.,	Chatham, O.
Scott, W. H.,	Owen Sound, O.
Semple, E. J., B.A.,	Montreal
Shaw, G. F.,	Ottawa, O.
Shaw, T. P.,	Montreal
Tomkins, J. E. C.,	Coaticook, Q.
Trenholm, G. A.,	Coaticook, Q.
Walker, J. L.,	Montreal
Whyte, J. T.,	Ottawa, O.
Wilson, R. D.,	Derby, N.B.
Wilson, Robert,	Montreal
Yearwood, C.,	Barbadoes, W.I.
Yates, H. B., B.A.,	Brantford, Q.

FACULTY OF ARTS.

Undergraduates.

FIRST YEAR.

Names.	*School.*	*Residence.*
Acer, J. H. A.,	Bishop's College School, Q.,	Montreal, Q
Archibald, S. G.,	M. H. S.,	"
Banfill, S. A.,	McGill Normal Sc., M.,	Channel, Brome Co., Q
Bates, C. W.,	Almonte H. S.,	Lanark, O
Bates, George E.,	Concord H. S.,	
Campbell, G. A.,	M. H. S.,	Montreal, Q
Cleland, J. A.,	Private Tuition,	"
Colclough, Thos. A.,	Almonte H. S.,	Lanark, O
Cole, W. G. G.,	Montreal Collegiate Institute,	Montreal, Q
Edgar, M.,	Montreal Coll. Inst.,	"
Friedlander, A.,	M. H. S.,	"
Gordon, A. E.,	Prince of Wales Coll.,	Alberton, P.E.I.
Gowan, T.,	Goderich Coll. Inst.,	Monkton
Graham, C. K.,	Private Tuition,	Hull, Q
Harris, Neil,	Glencol H. S.	Glencoe, O
Howell, A. R.,	St. John's School,	Montreal, Q
Lynch, T. I.,	St. John's School,	Knowlton, Q
Marler, H. M.,	Montreal Coll. Inst.,	Montreal, Q
Mills, F. W.,	Bishop's College School,	Lennoxville Q
Molson, K.,	M. H. S.,	Montreal, Q
Moore, W.,	Inverness Academy,	Lachute, Q
Mullin, R. T.,	Private Tuition,	Algoma Mills
Overing, R. Y.,	M. Diocesan Theo. Coll.,	Mount Royal Vale Q
Pollock, Thos. I.,	Lachute Academy,	Hill Head
Robertson, J. C.,	Private Tuition,	King's Co., N.B
Ross, A. R.,	Montreal Coll. Inst.,	Montreal, Q
Ross, H.,	M. H. S.,	"
Saunders, F. C.,	M. H. S.,	"
Schwartz, H. J.,	Quebec H. S.,	Quebec, Q
Scott, A. P.,	M. H. S.,	Montreal, Q
Scrimger, J. T.,	M. H. S.,	"
Smiley, F. C.,	St. Francis College,	St. Lambert, Q
Sutherland, J.,	Carleton Place H. S.,	Innisville
Snyder, W. A.,	Galt Coll. Inst.,	Preston, O
Turner, W. G.,	Quebec H. S.,	Quebec, Q
Vipond, F. C.,	Montreal Coll. Inst.,	Montreal, Q
Wainwright, F. R.,	Montreal Coll. Inst.,	Montreal, Q
Walker, Peter A.,	Strathroy	Carnlochie
Watt, R. G.,	Almonte H. S.,	Lanark, O
Wilson, A. C.,	Picton H. S., Pr. Ed. Co., O.,	Hillier, O

SECOND YEAR.

Names.	*School.*	*Residence.*
Armstrong, E. N.,	M.H.S.,	Montreal, Q
Boyd, Robert,	Ottawa Coll. Inst.,	Russell, O
Burnet, Arthur,	Grande Ligne Institute,	Farnham Centre, Q
Craig, W. W.,	M.H.S.,	Montreal, Q

Names.	*School.*	*Residence.*
Crombie, Wm. B.,	Smithville H. S.,	Fort Coulonge, Q
Dyer, Edward,	Sutton Model School,	Sutton, Q
Fourney, F. K.,	M.H.S.,	Montreal, Q
Gilmour, F. W.,	Almonte H. S.,	Almonte, O
Hanson, Albert C.,	McGill Normal School,	Barnston, Q
Hickson, James C.,	Eliock School,	Montreal, Q
Hopkins, M. C.,	McGill Normal School,	ontreal, Q
Howard, E. Edwin,	Inverness Academy,	Farnham, Q
Keith, Neil D.,	Glencoe H. S.,	Glencoe, O
Leroy, O. E.,	Lachute Academy,	Montreal, Q
Levy, A.,	Private Tuition,	Montreal, Q
MacIntosh, James,	Private Tuition,	Mount Pleasant, P.E.I
MacIntosh, Major,	Prince of Wales Coll.,	P.E.I., Summerside, P.E.I
McNaughton, Francis,	Huntingdon Academy,	Huntingdon, Q
Mitchell, Albert T.,	Diocesan Theological College,	Montreal, Q
Rogers, Reginald H.,	Prince of Wales College, P.E.I.,	Alberton, P.E.I
Smyth, W. Oswald,	M.H.S.,	Montreal, Q
Sutherland, Wm. C.,	Private Tuition	Woodstock, O
Symmes, Thos. J.,	Aylmer Academy,	Aylmer, Q
Terryberry, Arthur I.,	Barton Colleg. Institute,	Hamilton, O
Tooke Fred. T.,	M.H.S.,	Montreal, Q
Trenholme, Norman M.,	M.H.S.,	Montreal, Q
Wallace, James M.,	Kemptville H.S.,	North Gower, O
Watt, James C.,	Almonte H. S.,	Lanark, O
Weir, George,	Woodstock Colleg. Institute,	Eastwood, O
Young, Henry,	Almonte H.S.,	Blakeney, O
Young, Stephen,	Almonte H.S.,	Blakeney, O

THIRD YEAR.

Barlow, Walter L.,	Montreal, Q	Graham Angus,	Glencoe, O
Bickerdike, F. A. C.,	Montreal, Q	Graham, Fred. H.,	Iron Hill, Q
Blackett, John,	Ormstown, Q	Hanran, Robt. J.,	Inverness, Q
Bond, Wm. L.,	Montreal, Q	Harvey, Fred. W.,	Abercorn, Q
Boyd, Leslie H.,	Montreal, Q	Ireland, G. D.,	Alberton, P.E.I.
Bremner, William,	Ottawa, O	Lambly, M. O.,	Inverness, Q
Davis, E. A.,	Morris Flats, Q	Lewis, Wm. P.,	Iberville, Q
Davis, David T.,	Montreal, Q	McGregor, Alexander,	St Andrews, Q
Day, Frank J.,	Belleville, O	McKeracher, W.,	Howick, Q
Dickson, Ed.H. T.,	Trenholmeville, Q	Moffat, D. S.,	Irvine, Q
Dickson, Syd. M.,	Trenholmeville, Q	Naylor, Henry A.,	Shawville, Q
Duclos, Arnold Wm.,	Montreal, Q	Ogilvy, Charles,	Montreal, Q
Fraser, Frank C.,	Montreal, Q	Smith, Alistair,	Petitcodiac, N.B
Garret, W. P.,	Ottawa, O	Stewart, J. C.,	Embro, O

FOURTH YEAR.

Brown, Cecil L.,	Port Lewis, Q	Farnsworth, A. H.,	Compton, Q
Brown, James T.,	Huntingdon, Q	Gordon, John S.,	Alberton, P.E.I.
Carmichael, Saumarez,	Montreal, Q	Gurd, Charles C.,	Montreal, Q
Donahue, Wm.,	Montreal, Q	Hickson, J. W. A.,	Montreal, Q
Dresser, John A.,	Richmond, Q	Honeyman, H. A.,	Knowlton Q
Ellicott, T. W. H.,	Montreal, Q	Hutchison, David,	Brechin, O

Internoscia, Jerome,	Montreal, Q
Killaly, H. M.,	Morrisburg, O
McIver, Evander J.,	Montreal, Q
McGerrigle, J. A.,	Ormstown, Q
McVicar, Robert M.,	Montreal, Q
McVicar, Archibald,	Strathroy, O
Mahaffy, Albert,	Port Albert, O
Mansur, Charles,	Stanstead, Q
Muir, Peter D.,	Fordwich, O
Munn, Stewart M.,	Montreal, Q
Patterson, William,	Caultley, Q
Pratt, Francis,	Montreal, Q
Robertson, Albert J.,	Woodbridge, O
Sadler, Thos.,	DeWittville, Q
Skeels, Albee A.,	Montreal, Q
Smith, E. F. McL.,	Hawkesbury, Q
Thompson, James,	Bristol, Q
Townsend, Wm. McN.,	Traveler's Rest, P.E.I

B. A.

Colclough, W. F.	Pritchard, W. S.
Fraser, Daniel Jas.	Reid, Wm.
Jekill, H.	Russell, Andrew
McGregor, J. M.	Smith, Geo. H.
MacLennan, Kenneth	Waller, C. C.

Partial and Occasional.

A *Partial Student* (indicated by an asterisk) may, without passing the Entrance Examination, take the same classes as an Undergraduate, and must take at least three classes. Undergraduates and Partials are Matriculated Students. An *Occasional Student* takes less than three classes.

FIRST YEAR.

*Benny, W.,	Joliette Co., Q
Bayfield, Hy. A.	
*Bethell, T. G.,	Mascouche Rapids, Q
*Boshart, W. P.	
*Botterell, Jno. E.	
*Buker, C. F.,	Bishop's Mills, Q
*Caldwell, Wm. Mackay,	New York
*Calvert, Reuben,	Vittoria, O
*Carmichael, Hy.,	Masc. Rapids, Q
Charles, Jos. E.	
Dawes, N. J.,	Lachine, O
*Douglas, J. H.,	Amherst, N.S
*Douglas, R. J.,	Earltown, N.S
*Extence, Geo.	
*Fairbairn, A.,	Prescott, O
*Fish, Hy. A.,	Toronto, O
*Fraser, N. Frank,	Pictou, N.S
Gourlay, Wm. L.,	Carp, O
*Graham, D. J.,	Ashton, O
*Graham, Sharon,	Montreal, Q
Green, J. S.	
*Harris, Ed. A.,	Moncton, N.B
*Hayson, Hy. Jas.	
*Hodgson, J. R.,	Sawyerville, Q
*Horsey, Harold I.,	Kingston, O
*Humphrey, Jas. W.,	Cowansville, Q
*Jackson, Jno. A.,	Parkdale, Toronto
*Jackson, W. P.,	Kingston, O
*Jamieson, S. D.,	Inverness, O
Johnson, W. L.	
Jones, Herbert	
*Kelly, E. R.,	Pembroke, O
*Kennedy, J. K.	
*Leitch, F. A.,	Flesherton, O
*McConnell, J. H.,	Montreal, Q
*McCuaig, Wm.,	Pontiac Co., Q
*McEwan, S. R.,	Rawdon, Q
*McKinnon, Fred. W.,	Vankleek Hill
*MacMartin, T. A.,	Grande Frenière
Mason, G. A.	
*Mason, H. E.	
*Mathers, F. M.,	Lucknow, O
*Millar, D. D.,	Burgoyne, O
*Miller, A. B.,	Brantford, O
*Milliken, Jno. B.	
*Milliken, Robt.,	London, O
Murray, H. T.,	Kings Co., N.B
*Nelson, Isaac,	Montreal South, Q
Orr, Wm. J.,	Montreal, Q
*Patterson, Wm. L.	
*Peevor, R. G.,	Haley's Station, O
*Redpath, Harold,	Montreal, Q

Roberts, Albert N., Mass., U.S
Robertson, A. G.
*Shaw, Ernest, Avonmore
*Sing C. R., Singhampton
*Springle H. A., Montreal, Q
*Thom, Geo. Wm., Appleton
*Thomas, Ernest, Hochelaga, Q
*Warden, F. A.
Webb, W. M.
*Wilkinson, T. J., New Glasgow, Q
*Wilson, Wm.
*Wright, Chas. J., Aylmer, Q

SECOND YEAR.

*Ascah, A. C., Peninsular Gaspé, Q
*Ball, Geo. W., Montreal, Q
*Beauchamp, P., Grenville, Q
(1)*Benny, W. W.
(1)*Bethell, Thos. G.
(1)*Boshart, W. P.
Brandt, E. H., France
*Brown, Jno. L., Manitoba
(1)*Buker, Calvin F.
(1)*Calvert, Reuben
(1) Charles, Jos. E.
*Culp, Josephus, Beamsville, O
(1)*Extence, Geo.
(1)*Fairbairn, A.
Gilmore, G. G., Ireland
*Gourlay, J. J. L., Carp, O
(1)*Graham, D. J.
*Harnwell, H. J.
(1)*Hodgson, J. R.
(1)*Horsey, Harold I.
*Humphreys, Jno. A.
(1)*Jackson, Jno. A.
(1)*Jackson, W. P.
(1)*Jamieson, S. D.
(1)*Kelly, E. R.
Lamert, J. O., Montebello, Q
(1)*Leitch, F. A.
(1)*McConnell, J. H.
(1)*McCuaig, Wm.
(1)*McEwan, Sam. R.
McGilton, Adam C.
(1)*Mason, H. E.
(1)*Mathers, F. M.
(1)*Millar, D. D.
(1)*Miller, A. B.,
(1)*Milliken, Robt.
(1)*Nelson, Isaac
*Sanderson, Wm. C., Toronto, O
*Scott, Thos., Monkton, O
(1)*Sing, C. R.
*Smith, J. T., Toronto, O
*Sykes, C. A., Cobden, O
(1)*Thomas, Ernest
Thomas, F. W.
*Vaughan, Chas. S, Mystic, Q
*Veld, H., Montreal, Q
*Walker, Harry, Montreal, Q
(1)*Warden, F. A.
*Waterson, W. J., Rougemont, Q
White, Frank H., Montreal, Q
(1)*Wilkinson, Thos. J.
(1)*Wilson, Wm.
(1)*Wright, Chas. J.

THIRD YEAR.

(2)*Ascah, A. C.
(2)*Ball, Geo. W.
(2) Beauchamp, P.
(2)*Bethel, Thos. G.
(2)*Boshart, W. P.
(2) Brandt, E. H.
(2)*Brown, Jno. L.
(2)*Buker, Calvin F.
(2)*Calvert, Reuben
Connor, M. F.
(2)*Culp, Josephus
(2)*Fairbairn, A.
(2)*Graham, D. J.
Grisbrook, E. O., Sarnia, O
(2)*Hodgson, J. R.
(2)*Humphrey, Jas. W.
(2)*Humphreys, Jno. S.
(2)*Jackson, Jno. A.
(2)*Jamieson, S. D.
(2)*Kelly, E. R.
(2)*Leitch, F. A.
(2)*McConnell, J. H.
(2)*McCuaig, Wm.
(2)*Mathers, F. M.
(2)*Millar, D. D.
(2)*Miller, A. B
(2)*Milliken, Robt.
(2)*Nelson, Isaac
(1)*Peevor, R. G.
(1) Roberts, A. N.
*Ross, D. W.
(1)*Sing, C. R.

(2)*Smith, J. T.
*Stevens, Wm. H.
(2)*Sykes, C. A.
(2)*Thomas, Ernest
(2)*Warden, F. A.

(2)*Waterson, W. J.
(2)*Wilkinson, Thos. J.
(2)*Wilson, Wm.
(2)*Wright, Chas. J.

FOURTH YEAR.

(3)*Fairbairn, A.
(2)*Gourlay, J. J. L.
(3)*Grisbrook, E. O.
(3)*Humphreys, Jno. S.
(3)*Jackson, Jno. A.
Lonergan, G. J.
(3)*McConnell, J. H.
*Read, Geo. E., Montreal, Q

(3)*Ross, D. W.
(2)*Sanderson, Wm. C.
(2)*Scott, Thos.
(3)*Stevens, Wm. H.
(2) Thomas, F. W.
(2)*Vaughan, Chas. S., Mystic, Q.
(2)*Veld, H.
(2)*Walker, H.

DONALDA DEPARTMENT.

SPECIAL COURSE FOR WOMEN.

Undergraduates.

FIRST YEAR.

Name.	*School.*	*Residence.*
Brown, J. M.,	McGill Normal School,	Montreal, Q
Chalmers, L. H.,	Granby Academy,	Granby, Q
Denoon, Agnes H.	G. H. S. M.,	Montreal Q
Hammond, E. A.,	G. H. S. M.,	Montreal, Q
Henderson, G.,	Misses Symmers & Smith,	Montreal, Q
Hill, H. S. M.,	M. G. H. S.,	Montreal, Q
Hinds, C.,	Compton Ladies' College,	Actonvale, Q
Hobbs, G. A.,	M. G. H. S.,	Cote St. Antoine Q
Hurst, I. E.,	M. G. H. S.,	St. Lambert, Q
Hutchison, M.,	Coll. Ins., St. Thomas,	St. Thomas, O
Krause, Louise	Private Tuition,	Montreal, Q
Locke, W. A.,	M. G. H. S.,	St. Lambert, Q
McBurney, E. E.,	M. G. H. S.,	St. Lambert, Q
McCuaig, M.,	M. G. H. S.,	Montreal, Q
McKenna, M. M.,	Coaticook Academy,	Coaticook, Q
Mitchell, K.,	Trafalgar Inst.,	Montreal, Q
Nichols, A. W.,	M. G. H. S.,	Montreal, Q
Pinder, E. B.,	M. G. H. S.,	St. Lambert, Q
Pitcher, W. J.,	M. G. H. S.,	Montreal, Q
St. James, L. M.,	McGill Normal S.,	Grande Ligne, Q
Shaw, E. C.,	M. G. H. S.,	Montreal, Q
Watson, M. T.,	Renfrew H. S.,	

SECOND YEAR.

Name.	*School.*	*Residence.*
Armstrong, L. E.,	Montreal G. H. S.	Montreal, Q
Botterell, Florence,		Montreal, Q
Cameron, Susan E.,	Victoria H. S., St. John, N. B.,	St. John, N. B
Cushing, Florence E.,	G. H. S., Montreal,	Montreal, Q
Radford, Ethel S,	G. H. S., Montreal,	Montreal, Q
Rickey, Eleanor,	Private Tuition,	Jefferson City, Mo., U. S
Seymour, Clara,	Private Tuition,	Montreal, Q
Travis, Katharine,	Victoria H. S., St. John, N. B.,	St. John, N. B
Watson, Rosalind,	Huntingdon Academy,	Huntingdon, Q
Whiteaves, A. Maud,	Ottawa Collegiate Institute,	Ottawa, O
Wilson, Margaret,	McGill Normal School,	Montreal, Q

THIRD YEAR.

Name.	*School.*	*Residence.*
Brown, Jessie,	Mrs. Lay's School,	Montreal, Q
Craig, Margaret,	Girls' High School,	Montreal, Q
Hargrave, Edith,	Sherbrooke Girls' Academy,	Sherbrooke, Q
MacKenzie, Jane E. F.,	St. Francis College,	Richmond, Q
Ogilvy, Isabella,	G. H. S., Montreal,	Montreal, Q
Shaw, S. Louise,	G. H. S., Montreal,	Montreal, Q
Warner, Agnes L.,	G. H. S., St. John, N. B.,	St. John, N. B

FOURTH YEAR.

Angus, Frances P.,	Montreal, Q	James, Agnes S.,	Montreal, Q
Boright, M. D.		Lee, Mabel,	Quebec, Q
Brittain, Isabel J.,	Montreal, Q	Macdonald, Jessie H.,	Montreal, Q
Campbell, Rosalia F.,	Montreal, Q	McCoy Emma C.,	Rockburn, Q
Fairclough, Lizzie M.,	Hamilton, O	Millar, Edith N.,	Montreal, Q
Hunt, Lovisa E.,		Seymour, Martha,	Montreal, Q
Jackson, Annie,	Montreal, Q	Smardon, Charlotte,	Three Rivers, Q

B. A.

Binmore, Elizabeth	Macfarlane, Mira
Botterell, Inez R.	Raynes, Ethel
Campbell, Katherine	Reid, Helen R. Y.
Hall, Bessie	Ross, Jessie K.
Leach, Milda	Smith, G. Louise
Lyman, Helen W.	Tatley, Eleanor
Macdonald, M. L.	

Partial and Occasional.

A *Partial Student* (indicated by an asterisk) may, without passing the Entrance Examination, take the same classes as an Undergraduate, and must take at least three classes. Undergratuates and Partials are Matriculated Students. An *Occasional Student* takes less than three classes.

FIRST YEAR.

Brown A. A.,		Lambe, L.,	Montreal, Q
*Cochrane, Edith,	Montreal, Q	Lewis, M.,	Montreal, Q
Donahue, C.,		Lowden, J. E.,	Montreal, Q
Durnford, M. G.,	Montreal, Q	Macpherson, E.,	Montreal, Q
Forbes, I. M.,	Merrion Co., Dublin	*MacTavish, K. E.,	Montreal, Q
Francis, Elizabeth H.,	Prescott, O	Norris, A.,	Montreal, Q
Francis, G. S.,	Prescott, O	Raynes, N.,	Montreal, Q
Henry, Sara,	Montreal, Q	(2) Reid, Ethel H.,	Montreal, Q
Hausen, A.,	St. Sophie, Q	*Smith, A. Louise,	Montreal, Q
Johnson, E. L.,	Montreal, Q	*Wilson, Georgia,	Beauce Co., Q
Kerr, M. McK.,	Bute, Q	Wadsworth, N. L.,	Montreal, Q
Kingston, A. E.,	Montreal, Q	Warren E. H..	Montreal, Q

SECOND YEAR.

Baker, H.,	Sweetsburg, Q	Macnider, M.,	Montreal, Q
Campbell, Mary E.,	Montreal, Q	Redpath, Alice E.,	Montreal, Q
Claxton, Ethel G.,	Montreal, Q	Redpath, Lucy M.,	Montreal, Q
Eaton, Mrs. W.,	New York, U.S	(1) Reid, Ethel H.,	Montreal, Q
Erskine, J. B.,	Montreal, Q	*Savage, Mary M.,	Montreal, Q
Galt, M. G.,	Montreal, Q	Seymour. Mrs. M.,	Montreal, Q
Johnson, Helena.	Montreal, Q	White, M. M.,	Montreal, Q
MacDonald, A. W.,	Montreal, Q	Wilson, Ethel,	Montreal, Q
Macnider, C.,	Montreal, Q	(1)Wilson, Georgia,	

THIRD YEAR.

Ames, L. M ,	Montreal, Q	McLea, J. C.	Montreal, Q
Finley, Greta,	Montreal, Q	McLea, P. E.,	Montreal, Q
Johnson, H.,	Montreal, Q	McLea, Rosalie,	Montreal, Q
Lambe, Maud M.,	Montreal, Q	Thompson, Mary W.,	Montreal, Q

FOURTH YEAR.

Radford, Annie E., Montreal, Q (2) Wilson Georgia

FACULTY OF APPLIED SCIENCE.

FIRST YEAR.

Atkinson, Geo. Alex. S.,	Montreal, Q	Chase, Harry A.,	Kentville, N.S
Alley, G. T.,	Charlottetown, P.E.I	Clarke, E. Randolph,	Stratford, Ont
Archibald, Wm. Munroe,	Truro, N.S	Courtice, Francis E.,	Port Perry, Ont
Balfour, Reginald H.,	Montreal, Q	Dougall, G. Matile,	Montreal, Q
Barclay, Hanam H.,	St. Andrews E., Q	Ellacott, L. J. A.,	Cote St. Antoine
Bayfield, H. A.,	Charlottetown, P.E.I	Fairman, Ernest E.,	Montreal, Q
Bishop, J. Stratford,	Montreal, Q	Ferguson, Thomas,	Peterboro, Ont
Buchanan, Fitz. Price,	Montreal, Q	Fisher, John Gordon,	Montreal, Q

Gill, L. Willis, Little York, P.E.I
Girdwood, Kennet J., Montreal, Q
Green, Jos. Sam. Raoul, Montreal, Q
Hare, George Gray, St. John, N.B
Haycock, R. Lafontaine, Ottawa, Ont
Holland, Cecil F., St. Eleanor's, P.E.I
Hunter, John Wm., Kingston, Ont
Huntington, G. Leroy, Colebrook, N.S
Jones, Chs. Hugh, Montreal, Q
Kenney, Thos. Frederick, Ottawa, Ont
Loeb, A. Augustus, Montreal, Q
Mackie, J. D., Kingston Station, Ont
McBean, A. Stewart, Montreal, Q
McDermott, Michael S., Montreal, Q
McDougall, Wm., Ormstown, Q
McLaren, Duncan T., Montreal, Q
McMurchy, Malcolm, Gananoque, Ont
Mill, Thomas John, Maria, Ont
Morgan, Henry C., Ottawa, Ont
Mussen, Horace W., Aurora, Ont
Ogilvie, W. M., Cumming's Bridge, Ont
Purves, Archibald, North Sydney, C.B
Reid, Robert G., Montreal, Q
Reinhardt, Carl, Montreal, Q
Rutherford, G. Scott, Cote St. Antoine
Rutherford, S. F., Cote St. Antoine
Skill, Herbert Geo., Cobourg, Ont
Sise, C. Fleetford, Montreal, Q
Smaill, Albert Edward, Montreal, Q
Stewart, Robt. Holden, Montreal, Q
Walkem, G. Alex., Kingston, Ont
Walters, Morley, Hull, Q
Webb, William Morton, Petrolia, Ont
Weldon, Robert P., St. John, N.B
White, Frank H., Montreal, Q
Wright, Charles Harvey, Renfrew, Ont

SECOND YEAR.

Angus, Wm. Forrest, Montreal, Q
Askwith, W. R., New Edinburgh, Ont
Baker, Hugh C.
Balloch, G. Ralston, Centreville, N.S
Becket, Fred. Mark, Montreal, Q
Blackburn, E. Lennox, Ottawa, Ont
Boright, Geo. Nelson, Sutton, Q
Carter, Wm. Frederick, Cowansville, Q
Clements, F. S., Upper Kingsclear, N.B
Currie, William, Montreal, Q
Côté, Ernest L., Dorchester Bridge, Q
Cushing, J. Wilfrid, Montreal, Q
Dénis, Theophile, Montreal, Q
Dougall, Wilfrid, Montreal, Q
Greig, Alexander R., Cote St. Antoine
Griffin, M. Edward, Georgetown, P.E.I
Guillim, John Cole
Hart, Orobio C., Cowansville, Q
Huestis, Harry, E., Halifax, N.S
Jacobie, John Bridgford
Johnson, Edward Preston, Ottawa, Ont
Johnson, Wm. Stule, Clapham, Q
King, Robert Owen
Metcalfe, Thos. H., Montreal, Q
Moodie, Kenneth, Chesterville, Ont
McDougall, G. Dewar, Amherst, N.S
McDunnough, R. Baylis, Montreal, Q
McNaughton, Peter, Huntingdon, Q
Niven, Thos. Francis, Montreal, Q
Olive, Peter McHenry, St. John, N.B
Plummer, Thos. Henry, Toronto, Ont
Primrose, John, Pictou, N.S
Robins, Sampson Paul, Montreal, Q
Rogers, Frank Doughty, Montreal, Q
Scott, Alfred, Port Hope, Ont
Trenholme, H. R., Montreal Junction, Q
Turner, John Alex., Hamilton, Ont
Van Barneveld, C. E., Grindstone, Magdalen Isles, Q
Wilkin, Francis Alf., Calgary, N.W.T
White, Walter Thos., St. John, N.B

THIRD YEAR.

Brodie, Alexander, Quebec
Cole, Arthur Augustus, Montreal, Q
Collyer, Alfred, Sussex, Eng
Connor, Matthew Francis, Ottawa, Ont
Costigan, James Shearer, Montreal, Q
Darling, Edward, Montreal, Q
Duff, William Alexander.
Dyer, Leonard Wm. E., Montreal, Q
Gunn, Robert A.
Henry, J. Kaye, Sennatt, N.Y., U.S.A
Holden, Arthur K., Montreal, Q
Larmonth, John Herbert, Ottawa, O
Leach, Wm. Wilson, Montreal, Q
Lambert, Frank, Woodstock, O
Lonergan, Gerald J., Buckingham, Q
Longworth, C. H. B., Charlottetown, P.E.I
Mackay, H. Martyn, Pictou, N.S
Molson, Herbert, Montreal, Q
Morris, J. Wm., Wallace, N.S
Mudge, Arthur Langley, Mon real, Q
Pitcher, Francis H., Montreal, Q
Scammell, J. Kimball, St. John, N.B
Scott, W. Moffatt, Charlottetown, P.E.I
Shaw, H. H., Brackley Point, P.E.I
Whiteside, Orton E. S., Metcalfe, O

FOURTH YEAR.

Barnes, Howard Turner,	Montreal, Q	Massey, Arthur,	Montreal, Q
Bowden, Wm. Arthur,	Richmond, Q	McLeod, Thos. M.,	Georgetown, P.E.I
Burns, John Andrew,	Montreal, Q	Murphy, David,	Montreal, Q
Featherston, John,	Hamilton, O	Rankin, John,	Montreal, Q
Greenberg, Louis,	Montreal, Q	Robert, Alphonse, M.A.,	Ottawa, O
Herdt, Henri,	Montreal, Q	Ryan, A. J.,	Rouses Point, N.Y., U.S.A
Herdt, Louis,	Montreal, Q	Simpson, Lincoln,	Cavendish, P.E. I
Holman, R. Claude,	Summerside, P.E.I	Stevenson, J. A.,	South Granby, Q
Lawrie, Wm. Pitt,	Quebec, Q	Street, Leonard Lee,	Fredericton, N.B
MacPhail, J. Alex.,	Orwell, P.E.I		

Post Graduates.

Adams, Walter Chamblet,	Montreal, Q	Antliff, John H.,	Montreal, Q

PARTIAL STUDENTS.

Barbour, Francis Ed.,	Montreal, Q	LaFrenaye, S. Grant,	Magog, Q
Brown, Thomas,	Montreal, Q	Lewis, George Gordon,	Montreal, Q
Courtice, Rev. Mr.,	Montreal, Q	Manson, R. Chs.,	Cote St. Antoine
Crawford, J.,	Verdun, Q	McCallum, Arthur,	Maxwell, O
Crombie, Fred. Rubidge,	Montreal, Q	McKenzie, C. Alex.,	Kirkfield, O
Cunningham, Alured A.,	Montreal, Q	McKenzie, Robt John,	Toronto, O
Dawes, Norman J.,	Lachine, Q	Ramsay, W. Angus,	Cote St. Antoin
Dawson, Harold G.,	Montreal, Q	Riley, William,	Montreal, Q
Desbarats, C. H. Hullett,	Montreal, Q	St. George, Frank T.,	Montreal, Q
Gamba, Emilio,	Bogota, Columbia, S. Amer	Tylee, G. R.,	St. Thérèse de Blainville, Q
Killaly, A. McMurray.	Morrisburg, O		

FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE.

FIRST YEAR.

Boutelle, C. A	Danville, Que.	Jones, W. V	Wolfville, N.S.
Baldwin, B. K	Philadelphia, Pa.	Jones, F	Brandon, Wis.
Cowan, A	Montreal, Que.	Kammerer, R	St. Louis, Mo.
Cutting, J. C	Boston, Mass.	Mitchell, A	Skaneateles, N.Y.
Davis, R. E	Fallowfield, Ont.	Mason, J K	Campello, Mass.
Fraser, A. D	Montreal, Que.	Moody, M. A	Terrebonne, Que.
Hargrave, J. C	Medicine Hat, Ass.	Reagan, S. M	Mexico, Mo.
Inglis, W	Granby, Que.	Thurston, E. C	Montreal, Que.
Irvine, J	Dalkeith, Ont.	Zink, C. H., Jr	Philadelphia, Pa.

SECOND YEAR.

Anderson, B	Montreal.	Moore, A. E	Stanbridge E, P.Q.
Baker, G. P	Binscarth, Man.	Mulvey, C. J	Mooers, N.Y.
Buchan, J. A	L'Orignal, Ont.	McAlpine, D	Vankleek Hill, Ont
Cleaves, L. S	Boston, Mass.	McGillivray J. D	Laggan, Ont.
Cleveland, H. R	Danville, Que.	McLeod, J	Howick, P.Q.
Cary, E. J	North Adams, Mass.	Patterson, J. H	Montreal, P.Q.
French, C	London, Eng.	Shaw, J. R	San Jose, Cal.
Grattan, R. H	Preston, Minn.	Salley	Skowkegon, Me.
Gaudry, A	Cote St. Louis.	Solandt, J. V	Inverness, P.Q.
Hall, A. H	Leeds, P.Q.	Thomas, R	Middlebush, N.J.
Hollingsworth, J. B.	Buckingham, P.Q.	Walsh, F	Ormstown, P.Q.

THIRD YEAR.

Brainerd, E.....Kakoko, Mo.
Campbell, J. G.....Montreal, P.Q.
Cleaves, A. S.....Rindge, N.H.
Dunton, H. B .....Richmond, P.Q.
Denny, H. E .....New York City.
Lamb, A. S .....Montreal, P.Q.
Morrin, W .....Belle Rivière, P.Q.
McGuire, W. C.....Shawville, P.Q.
McDougall, J..... ..Montreal, P Q.
Orr, O. G.....New Armagh, P.Q.
Paterson, J. H .....Montreal, P.Q.
Plaskett, W. S.....Woodstock, Ont.
Rathbone, J.....Montreal, P.Q.
Stephens, J.....Huntingdon, P.Q.
Sturrock, T..... .....Laggan, Ont.
Thayer, S. W .....Cambridge, Mass.
Tracy, A. W..... .....Sherbrooke, P.Q.
Wylie, M. C.....New Harmony, Ind.

COLLEGES AFFILIATED IN ARTS.

MORRIN COLLEGE, QUEBEC.

Undergraduates.

Bishop, Cyril A., Quebec, Q
Chambers, Edw. J. C., Granby, Q
Cook, Jno. Wilson, Quebec, Q
Dalziel, John A.
Drum, Harcourt C., Quebec, Q
Fraser, Ethel V., Quebec, Q
Gale, Ethel L., Quebec, Q
Hale, Trevor A., Quebec, Q
Harper, Robt. M., Quebec, Q
Langlois, Peter W., Quebec, Q
Lindsay, Jno., Danville, Q
McWilliam, Bessie, Quebec, Q
Macadam, Margaret, Scotland
Polley, Jas. F., St. Stephen, N.B
Taylor, Wm. Baxter, Quebec, Q
Thomson, Harry Stuart, Quebec, Q
Woodside, Geo. H., St Sylvestre, Q

Occasional Students.

Ashe, Wm. E.,
Barden,—
Campbell, Geo.,
Campbell, Miss,
Carrell, Frank,
Dalkin, Mrs.,
Ferguson, Miss,
Lee, Emily, Quebec, Q
Macdonald, Miss,
Macadam, —,
Meiklejohn, May,
Meiklejohn, Julia,
Morrison, Geo.,
Wheeler, Jas.,

ST. FRANCIS COLLEGE, RICHMOND.

Undergraduates.

Coburn, David, Melbourne, Q
Dearden, Daniel, Richmond, Q
Fraser, Alice, Richmond, Q
Lyster, Howard, Richmond, Q
Paterson, Frederick, Richmond, Q
Stockwell, Henry P., Danville, Q
Vaudry, Olive, Shefford Mountain

1892-93

Partial Students.

Crack, Arthur,	Kingsbury, Q	McIver, Evan,	Melbourne, Q
Frye, A. W.,	Windsor Mills, Q	Tanner, Chas. A. H.,	Richmond, Q
Goodfellow, Kate,	Melbourne, Q	Tanner, Wm. P.,	Richmond, Q
Keough, Jas. P.,	Richmond, Q		

STANSTEAD WESLEYAN COLLEGE.

Undergraduates.

Bryant, Flora Anna,	Stanstead Q	Morrill, Victor Eugene,	Stanstead, Q
Gustin, Alfred,	Fitch Bay, Q	Rugg, Mary Alice,	Stanstead, Q
Howard, Catharine,	Farnham, Q	Terrill, Harriet Maud,	Stanstead, Q
Lufkin, Bessie,	Melbourne, Q	Walters, Wm. Hy.,	Lynn, Mass.
McDuffee, Mamie,	Stanstead, Q		

SUMMARY.

Students in Law, McGill College			35
" in Medicine, "			311
" in Arts :— "			
Men	Graduates	10	
	Undergraduates	128	
	Partial and Occasional	93	
Women	Graduates	13	
	Undergraduates	54	
	Partial and Occasional	50	348
Students in Arts, Morrin College			31
" " " St. Francis College			14
" " " Stanstead Wesleyan College			9
" " Applied Science, McGill College :—			
	Undergraduates		136
	Partial and Graduates		23
" Veterinary Science			58
			965
Deduct entered in two Faculties			3
			962
McGill Normal School, Teachers-in-training			105
Total			1067

Donations to Library and Museum.

FROM MAY, 1892, TO APRIL, 1893.

TO THE LIBRARY.

From the author (James Constantine Pilling), Bureau of Ethnology, Washington—Bibliography of the Algonquian Languages.

From Miss Archibald, 55 Durocher street—36 vols., various, on surveying, engineering, etc.; and 7 books in paper covers, and 101 copies of the *Engineering News*.

From the McGill Graduates Society—Kingsford's History of Canada, Vol. 5.

From F. A. Brockhaus, Leipzic—156 volumes, handsomely bound, comprising History, Philosophy, Botany, Literature, Astronomy, etc.

From John Lovell & Son, for the Applied Science library—77 volumes of Miscellaneous Literature.

From the U.S. Coast and Geodetic Survey office—Annual Report U.S. Coast and Geodetic Survey for 1890.

From the Smithsonian Institution, Washington—Annual Report for 1890.

From John S. Shearer—Journal des Campagnes du Chevalier de Lévis en Canada, de 1756 à 1760; Lettres du Chevalier de Lévis concernant La Guerre du Canada, 1756-60.

From T. A. Gibson, 1797 Ontario street—Hogg's Instructor, 5 vols.; Dictionnaire Historique et Bibliographique; Dictionnaire Géographique Portatif; The Gazetteer's or Newsman's Interpreter, by Lawrence Echard.

From Macmillan & Co., London, Elementary classics—Euripides; Medea; Bayfield, two copies; Cæsar; Civil War, Book I; Xenophon; Anabasis III.; Tales from Herodotus; Easy Exercises in first Greek Syntax, 2 copies; Herodotus, Book III.; Short Historical Grammar of the German Language; Introduction to Commercial German; Euclid, Book I., for beginners; the Elements of Plane Trigonometry.

From Baron Ferd. von Mueller, Melbourne, per Sir J. W. Dawson—Iconography of Australian Species of Acacia and Cognati Genera in 13 parts.

From the Weather Bureau, Washington—Weather Maps for April and May.

From the author (J. E. LeRossignol)—The Ethical Philosophy of Samuel Clarke.

From the Dominion Government, Ottawa—Appendix to 25th vol. of the Journals of the House of Commons, 1891; do. do. Journals of the Senate; Journal of the House of Commons, Appendices Nos. 2, 4 and 5.

From the author (Professor Chandler)—Elements of the Infinitesimal Calculus, 2 copies.

From the Institution of Civil Engineers—Proceedings, Vol. CVII.

From the New York State Library, Albany, N.Y.—State Museum Report for 1890; Bulletin of the Museum, No. 1.

From Wm. Drysdale—The History of Canada, from its first discovery to the present time, McMullen.

From Peter Redpath, Esq.—"Oxford Historical Society's Publications;" Woods' Life and Times, Vol. II.; Reminiscences of Oxford, by Oxford men.

From Messrs. Whittaker & Co. (publishers)—Mineralogy, by Frederick H. Hatch.

From the Highland & Agricultural Society of Scotland—Transactions, 5th series, Vol. 4.

From Melbourne University—Calendar for 1892.

From Aberdeen University—Calendar for 1892-93.

From the State Geologist, New Jersey—Annual Report for 1891.

From Sir J. W. Dawson—Materialism and Modern Physiology of the Nervous System, by Dr. W. H. Thomson.

From the author (John C. Smith, Brooklyn, N.Y.)—Questions in Mathematics, 1892.

From the U S. Government, Treasury Department—Report on the Production of the Precious Metals, 1891.

From the Pennsylvania Geological Survey—Summary, Final Report, Vol. I; Atlas—Southern Anthracite Field, Parts IV., V. and VI.

From the U.S. Treasury Department—Report on Production of the Precious Metals in the U S., 1891, 1 vol.

From the Pennsylvania Geological Survey—Final Report, Vol. I, Laurentian, Cambrian and Lower Silurian, 1 vol.; Atlas Southern Anthracite Field, Part IV., B, 1 vol.; Part V., AA, 1 vol.; Part VI., AA, 1 vol.

From the U.S. Government Weather Bureau—Weather maps for May, June, July, August and September.

From the University of London—Calendar for 1892-93, Part I., 1 vol.; Calendar Examination Papers, Part II., 1 vol.

From the Edinburgh University—Calendar for 1892-93, 1 vol.

From the U.S. Government, 10th Census, 1880—21 vols of the 10th U.S. Census, for the Applied Science Library.

From the Geological Survey of Minnesota—19th Annual Report, for 1890, 1 vol.

From La Société Royale Norwegienne des Sciences—Del Koneliji Norske Videnskabers Selskabs Skrifter, 1888-90, 1 vol.

From the U.S. Government, Washington, Department of Fisheries—Bulletin of the U.S. Fish Commission, Vol. 9, 1889, 1 vol.

From the Editorial Committee of the Norwegian North-Atlantic Expedition Zoologi (Crinoidu-Echinida), 1 vol.

From Wm. Trelease, director of the Missouri Botanical Garden, St. Louis—Third Annual Report, 1892, 1 vol.

From the Royal Society of Canada—Transactions, Vol. 9, 1891, 1 vol.

From Mr. James Reid—Elements of Phrenology, by George Combe, 1820, 1 vol.

From the Society of Engineers, London—Transactions for 1891, 1 vol.

From Dr. George King, superintendent of the Royal Botanic Garden, Calcutta—Annals of the Royal Botanic Garden, Vol. 4, 1 vol.

From an unknown donor—Elements of Machine Design, by J. F. Klein, 1 vol.

From the Glasgow University—Calendar for 1892-93, 1 vol.

From the Institution of Civil Engineers, London—Proceedings, Vols. 108, 109 and 110, 3 vols.

From the Smithsonian Institution—Contributions to Knowledge, Vol. 18, 1 vol.

From James Hall, State Geologist, New York—Palæontology, Vol. 3.

From John C. Branner, State Geologist, Arkansas, per Sir J. W. Dawson—Annual Report of the Geological Survey of Arkansas for 1890, Vol. 3, 1 vol.; do do for 1892, 1 vol.

From A. McKim & Co., Montreal—The Canadian Newspaper Directory, 1892, 1 vol.

From Macmillan & Co., London—Livy, Book V., by Malford, 1 vol.; do., Selections, Books V. and VI., by W. Cecil Laning, 1 vol.; Chemical Theory for Beginners, by Doblin and Walker, 1 vol.

From the Royal Colonial Institute—Report of Proceedings, Vol. 23, 1891-92, 1 vol.

From the Queen's Printer, Winnipeg, Man.—Acts of the Legislature of Manitoba, 1892, 1 vol.

From the Dominion Government, Ottawa, Department of Agriculture—The Statistical Year Book of Canada for 1891, 1 vol.

From Sir J. W. Dawson—The Two Spheres of Truth, by T.E.S.T., 1 vol.

From J. W. Powell, Director U.S. Geological Survey—Mineral Resources of the U.S., 1889-90, by David T. Day, 1 vol.

From the Astronomer Royal, Greenwich—Greenwich Observations for 1889, 1 vol.

From the Royal Society of London—Philosophical Transactions, 1891, A and B, and List of the Council and Fellows, 2 vols.

From Mr. Peter Redpath—The Year Book of the Imperial Institute, 1892, 1 vol.

From the Provincial Government of Ontario—Annual Report for 1891, 2 copies, 2 vols.

From the Queen's Printer, Winnipeg, Man.—Journals of Legislative Assembly, 1892, 1 vol.

From the Provincial Government, Quebec—Statutes of Quebec, 55 and 56 Vict., 1892, 1 vol.; the same in French, 1 vol.

From Dr. J. G. Bourinot, Ottawa—Cape Breton and its Memorials, 1 vol.

From the McGill Graduates' Society—35 vols. and 12 vols.

From Mr. Peter Redpath—110 vols.

From the Dominion Government, Ottawa—Debates of the House of Commons, session 1892, Vols. 1 and 2, 2 vols. Statutes of Canada, 1892, Vols. 1 and 2, 2 vols.

From the McGill Graduates' Society—A Half Century of Conflict, by F. Parkman, 2 vols.; History of the People of the U.S., by A. B. McMaster, 1 vol.; Statesman's Year Book for 1892, 1 vol.; Studies in Literature, 1789-1877, by E. Dowden, 1 vol.; The Poetry of Tennyson, by H. Van Dyke, 1 vol.; The Nature of the Fine Arts, by H. Parker, 1 vol.; Chaucer—Prioresses' Tale, etc., 1 vol.; Mrs. Orr—Handbook to Robt. Browning, 1 vol.; Gage and Fessenden's High School Physics, 1 vol.; Dante and his Circle, 1 vol.; Cabot's Life of Emerson, 2 vols.; Orr's Life of Browning, 2 vols.; Fiske's Discovery of America, 2 vols.; Oliver W. Holmes—Autocrat of the Breakfast Table, Poet at the Breakfast Table, Professor at the Breakfast Table, Over the Tea Cups, 4 vols.; North American Pyrenamycites, 1 vol.; Von Holst's Constitutional History of the United States, 3 vols.; Norse Mythology, 1 vol.; America not Discovered by Columbus, 1 vol.; Freeman's Historical Essays, 1 vol.; Freeman's Method of Historical Study, 1 vol., Chaucer's Minor Poems, 1 vol.; Chaucer's Man of Law, 1 vol.; Scott's Lady of the Lake, by Minto, 1 vol.; Browning Cyclopædia, 1 vol.; Makers of Florence, by Mrs. Oliphant, 1 vol.; Matthew Arnold's Poems, 1 vol.; The American Railway, 1 vol.; Ocean Steamships, 1 vol.; Lecky—England in the Eighteenth Century, Vols. 6, 7 and 8, 3 vols.; Tyler's Anthropology, 1 vol.; English Men of Letters Series, Bacon, Locke, Addison, Wordsworth, 4 vols.; Our Native Ferns, by L. M. Underwood, 1 vol.; The Dawn of History, by C. J. Keary, 47 vols.

From the Institution of Engineers and Shipbuilders, of Scotland—Transactions, Vol. 35, 1892.

From the American Association for the Advancement of Science, per Sir J. W. Dawson—Proceedings Washington Meeting, 1891.

From Owens College, Manchester—Calendar for 1892-93.

From the Geological Survey of New York—Palæontology, Vol. 8; Genera of Palæozoic Brachiopoda, by Hall and Clarke—Part I.

From the Government Observatory Madras, per the Right Hon. the Governor in Council—Meteorological Observations at the Government Observatory, 1861-1890.

From the Geological Survey of Pennsylvania Summary Final Report, 1892, Vol. 2—(Upper Silurian and Devonian).

From the same, per Sir J. W. Dawson, second copy.

From the Department of Agriculture, Victoria, Aust., per Sir J. W. Dawson—Handbook of Destructive Insects, Part I, by C. French, Government Entomologist.

From the Provincial Secretary of Manitoba—Revised Statutes of Manitoba, 189, Vols. 1 and 2 (in one).

From Messrs. MacMillan & Co., publishers, London—Thucydides, edited by G. T. Tucker; The Bacchae of Euripides, by R. Yelverton Tyrrell; Decimal Approximations, by H. St. John Hunter; Xenophon's Anabasis, Book V., by E. H. Hall; Progressive Mathematical Exercises, by G. T. Richardson; Algebraic Factors, Classified and Applied, by J. Abbott Jarman; Arithmetic for Schools, by Smith and Hudson; Macmillan's Course of French Composition, 2nd Course.

From an unknown donor, a present to youths and young men, 1891, 2 vols.

From the Volta Bureau, Washington, per the Smithsonian Institute; Notes and Observations upon the Education of the Deaf, by Jos. C. Gordon, M.A.

From the University of Toronto, Calendar for 1892-93.

From D. C. Heath & Co., Boston—Die Jungfrau Von Orleans—Schiller edited by B. W. Wells, Ph.D

From the McGill Graduates Society, Edmund Burke—English Men of Letters series.

From the National Electric Light Association—Report of the 4th Convention held at Montreal, 1891.

From Dr. Cornish—New Testament in the Motu Language; Taravata Mutamala, London, 1891; Notes, Grammar and Vocabulary, New Guinea, by Rev. W. G. Laws.

From the Dominion Government, Ottawa—Journal of the Senate, Vol. 26, 1892; Sessional Papers, Vol. 25, 1892; Nos. 1 to 12 (less No. 7).

From the author, H. M. Hain, a complete Grammar of Volapuk.

From the British American Bank Note Co., per Mr. Jeffery H. Burland—L'Opinion Publique, Vol. 1, 1870; Vols. 9, 1878; 10, 1879; 11, 1880; 12, 1881; 13, 1882; 14, 1883. Canadian Illustrated News, Vols. 1 and 2, 1870; Vols. 5 to 12, 1872 to 1875; and Vols. 19 to 24, 1879 to 1891. Canadian Magazine and Patent Office Records, 1873 to 1892.

From the Melbourne University, Victoria, Aust—Calendar for 1893.

From the Dominion Government, Ottawa—Journals of the House of Commons, Vol. 26, 1892.

From the University of the State of New York—Regents Report No. 104, 1890; No. 1 Bulletins; No. 2 Colleges; No. 3 Academic.

From Mr. W. C. McDonald—Carpenter's Text-Book of Experimental Engineering, Colburn's Locomotive Engineering and the Mechanism of Railways; Cromwell's Belts and Pulleys; Dingey's Machinery Pattern-Making; Flather's Dynamometers and the Measurement of Power; Grimshaw's Engine Runners' Catechism; Hall's Lubrication; Holly's Carpenters and Joiners' Handbook;

Howe's Metallurgy, Hudson's Tables ; Kirkwood's Lead Pipe for use as Service Pipe ; Lanza's Strength of Wooden Columns ; MacCord's Practical Hints for Draughtsmen ; Merrill's Stones for Building and Decoration ; Merriman's Treatise on Hydraulics, Part II ; Metcalfe's Course of Instructions in Ordnance and Gunnery, 2 vols.; Mahon's Industrial Drawing, 2 vols. ; Niaudet's Elementary Treatise on Electric Batteries ; O. Driscoll's Notes on the treatment of Gold Ores ; Phelp's Practical Marine Surveying ; Richardson's Blacksmithing, 4 vols. ; Stockbridge's Rocks and Soils ; Thurston's Conversion Tables, also Materials of Engineering, Part III, Manual of the Steam Engine, Part II ; and Carnot's Reflections on Motive Power of Heat ; Wegmann's Design and Structure of Masonry Dams ; Wilson's Mine Ventilation ; Wood's Principle of Elementary Mechanics, also Treatise on Resistance of Materials ; Bresse's Water Wheels, translated by Maban ; Smith's Manual of Topographical Drawing ; Journal of the Iron and Steel Institute, from 1871 to 1886, 25 vols., in all 63 vols.

From Professor Egleston—Catalogue of Minerals and Synonyms, by Egleston.

From National Electric Light Association—Proceedings at the Montreal Convention, 1891.

From the U. S. Government, Washington (Department of the Interior)—Vol. 1 of the 7th Census of the U. S., 1890, Mineral Industries; Vol. 2, Population Part 1 ; Vol. 3, Public Debt, Part I.

From Dublin University—Calendar for 1893 ; Examination Papers for 1893.

From——per Sir J. W. Dawson—Annales de Géographie, par de la Blache et Marcel Dubois.

From the Royal Institution of British Architects—Transactions, Vol. 8, new series.

From the Corporation of the City of Montreal—Annual Reports for 1891.

From Trinity University, Toronto—Calendar for 1893 ; Examination papers 1892.

From J. C. Branner, State geologist, Arkansas—Geological Survey, Annual Report, 1891.

From N. H. Winchell, State geologist, Minnesota—Geological Survey Bulletin No. 7; The Mammals of Minnesota, by C. L. Herrich.

From the Board of Railroad Commissioners of Massachusetts—Twenty-fourth Annual Report, January, 1893.

From the author (Rev. John Wright, D.D., St. Paul, Minnesota)—Early Bibles of America.

From the Bureau of Ethnology, Washington—Bibliography of the Athapascan Language, by James Constantine Pilling ; Contributions to North American Ethnology, Vol. 7 ; 7th Annual Report of the Bureau of Ethnology, 1885-86.

From the University of Vermont—Catalogue of the Library of Geo. P. Marsh.

From Mr. E. B. Greenshields—Semi-Centennial Report of the Montreal Board of Trade, 1893.

From Messrs Macmillan & Co., London—Commercial Arithmetic, by S. Jackson ; Differential Calculus for Beginners, by Joseph Edwards.

From the British Association for the Advancement of Science—Report of the Meeting of the Society at Edinburgh, 1892.

From the Smithsonian Institution—Annual Report of the United States National Museum, 1890.

From the Institution of Civil Engineers, London, Eng.—Minutes of Proceedings, Vol. 111.

From the McGill College Book Club—103 vols.

From the United States Government, Bureau of the Mint—Production of Gold and Silver of the United States, 1892.

From the United States Government, War department—Annual Report of the Chief of Engineers United States Army, in 4 parts, and Atlas.

From the McGill College Book Club—Jonathan Edwards, by A. V. G. Allen; Essays and Criticism, by Matthew Arnold; Introduction to Eng. Econ. Hist. and Theory, by W. J. Ashley; Among the Law Makers, by Edmund Alton; Masks or Faces? by William Archer; A Ride through Syria to Damascus and Baalbec and Ascent of Mount Hermon, by Edw. Abram; Earthquakes, by Arnold Boscowitz; The Age of Electricity from Amber-Line to Telephone, by Park Benjamin; The Career of Major George Broadfoot, C. B., in Afghanistan and the Punjab; Through Magic Glasses and other Lectures, by Arabella B. Buckley (Mrs. Fisher); French Traits, by W. C. Brownell; The American Commonwealth, by Jas. Bryce; Days and Nights of Service with Sir Gerald Graham's Field Force at Suakim, by Major E. A. de Cossin; Handbook of Commercial Geography, by Geo. G. Chisholm; Causes of the Great Fall in Prices, by Arthur Cramp; Nature and Man: Essays Scientific and Philosophical, by Wm. B. Carpenter; Keats, by Sidney Colvin; Structure and Distribution of Coral Reefs, by Chas. Darwin; Silver in Europe, by L. Dana Horton; Iris: Studies in Color and Talks About Flowers, by Franz Delitzsch; The Geological History of Plants, by Sir J. W. Dawson; Prolegomena to In Memoriam, by Thos. Davidson; De Roberval: A Drama, by John Hunter Duval; Social Aspects of Christianity and Other Essays, by Richard T. Ely; William Shakespeare: A Literary Biography, by Karl Elze; Pre-Historic Races of the United States of America, by J. W. Foster; The Critical Period of American Hist., 1783-1789, by John Fiske; Civil Government in the U. S., by John Fiske; The Crown Prince and the German Imperial Crown, by Gustav Freytag; The English in the West Indies, by J. A. Froude; My Autobiography and Reminiscences, by W. P. Frith; Chance and Luck, by Richard A. Proctor; The First Principles of Knowledge, by John Rickaby; Mental Evolution in Man, by G. J. Romanes; Dante and his Circle, by Dante Gabriel Rossetti; Belief in God, its Origin, Nature and Basis, by J. G. Thurman; The Quintessence of Socialism, by Dr. A. Schaffle; Hist. of Anglo-Saxon Freedom, by James K. Hosmer; Modern Italian Poets, by W. D. Howells; Cardinal Newman, by R. H. Hutton: Literary Essays, by R. H. Hutton; Field and Hedgerow, by Richard Jefferies; Wild Life in a Southern County, by Richard Jefferies: The Coming of the Friars, by Rev. Aug. Jessopp, D.D.; Wordsworthiana, ed. by Wm. Knight; Chopin and other Musical Composers, by Henry T. Finch; Essays in Philosophy, Old and New, by William Knight; Modern Science and Modern Thought, by J. Lang; Myth, Ritual and Religion, by Andrew Lang; Lost Leaders, by And. Lang; Letters on Literature, by Andrew Lang; The Epic of Hades, by Lewis Morris; Egyptian Archæology by G. Muspero; Frank's Ranche or My Holiday Among the Rockies; The Architecture of Provence and the Riviera, by David MacGibbon; Amita: A Modern Life Drama, by Cornelius O'Brien; Indian Life, Religious and Social, by John Campbell Oman; Village Community, by G. L. Gormme; Seventeenth Century Studies, by E. W. Gosse; History of Eighteenth Century Literature, by E. W. Gosse; The Spiritual Sense of Dante's Divina Commedia," by W. T. Harris; Socialism, New and Old, by Wm. Graham; The Banquet(Il Convito) of Dante's Alighieri, translated by Katharine Hilliard; The Lion's Cub, With Other Verse, by R. H. Stoddard; Scientific Papers of Asa Gray, selected by C. P. Sargent; A White Umbrella in Mexico, by F. Hopkinson Smith; Yankee Girls in Zulu Land, by Louise V. Sheldon; Emigration and Immigration by Richmond M. Smith; The Pope and the New Era, by W. T. Stead; The Russian Peasantry, by Stepniak; Ballads, by R. L. Stevenson; Evolution and Disease, by J. B. Sutton; The Colonies 1492-1750, by Reuben Gold Thwaites; History of Ancient Civilization, by Rev. J. Verschoyle; The

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And a large number of pamphlets and books in paper covers.

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From W. C. Van Horne, Esq.—Zuni and Pueblo pottery from Arizona and New Mexico ; Mound Builders' pottery ; two stone carvings from the Queen Charlotte Islands ; one horn vessel from Alaska ; large specimen of amethyst and fluor-spar from Port Arthur.

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From Arthur Weir, Esq., B.A.Sc., Montreal—Basaltic column from the Giants Causeway, Ireland.

From Dr. E. Lambert, of England—Guanche mummy, 9 Guanche skulls, bodkins, beads, etc., from Barranco Lanzos, Canary Islands.

From Don Gregoria Chil, per Dr. Lambert—Guanche skull from the Canary Islands.

From Horace Martin, Esq., Montreal—Specimen of *Calamites cannæformis* from the coal formation of England.

From H. H. Lyman, Esq., M.A., Montreal—Group of stuffed beavers in glass case.

From Professor Penfield, New Haven, Conn.—Specimens of Calcite, Dolomite and Marcasite, from Joplin, Missouri.

From James Reid, Esq., Blairgowrie, Scotland—Slab of *Zosterophyllum Myretonianum* from Myreton, Scotland.

From Mr. James Cameron, South Finch, Ont.—Specimen of Mink.

From Baron F. Von Mulller, Australia—Collection of marine algæ from Australia.

From Mr. W. H. Hamilton, B.A.Sc., Pueblo, Colorado—Collection of minerals from Colorado and New Mexico.

From Mr. A. L. Cockayne, Christchurch, New Zealand—Collection of New Zealand plants.

From Lieut.-Col. Grant, Hamilton, Ont.—Collection of Silurian fossils.

From Prof. D. P. Penhallow, B.Sc.—Collection of New England lichens.

From Dr. Wolcott, Washington, D.C.—Stromatopora from the Lower Cambrian, Grand Canon, Colorado.

From the Geological Survey, Ottawa, through W. F. Ferrier, B.A.Sc.—Two specimens of Scheelite from Marlow, P.Q.

From Dr. R. F. Ruttan, B.A., Montreal—Collection of specimens illustrating the "land pebble phosphate deposits" of Central Florida.

From Mr. W. H. Collins—Specimens of Grebe.

From Mr. L. Simpson, Prince Edward Island—Stone spear-head and specimen of silicified wood from Prince Edward Island.

Observatory

Latitude, N. 45° 30′ 17″. Longitude, 4^h 54^m. 18^s. 55.

Height above sea level 187 ft.

Superintendent.—C. H. McLeod, Ma.E.

Assistant-Superintendent.—G. H. Chandler, M.A.

Assistant.—J. A. Stevenson, B.A.Sc.

Meteorological Observations are made every fourth hour, beginning at 3^h $0m$ Eastern standard time; also at 8^h 0^m and 20^h 0^m. Independent bi-hourly temperature observations are also made. The principal instruments employed are the following:—Two standard mercurial barometers; one Kew standard thermometer; two Pastorelli thermometers; one maximum thermometer; one minimum thermometer; one set of six self-recording thermometers, with controlling clock, battery, etc.; two anemometers; one wind vane (wind-mill pattern), one anemograph, with battery, etc.; one sunshine recorder; one rain-band spectroscope; and one rain gauge.

The Anemometer and Vane are on the summit of Mount Royal, at a point about three quarters of a mile north west of the Observatory. They are 57 feet above the surface of the ground and 810 feet above sea level.

The Astronomical Equipment consists of:—The Blackman Telescope (6¼ in.); a photoheliograph (4½ in.); a 3¼ in. transit, with striding level; two 2 in. transits, arranged as collimating telescopes; one sidereal clock; one mean time clock; one sidereal chronometer; one mean-time chronometer; one chronograph; batteries, telegraph lines and sundry minor instruments.

Observations for clock errors are made on nearly every clear night. Time exchanges are regularly made with the Toronto Observatory. Time signals are distributed throughout the city by means of the noon time-ball, continuous clock signals, and the fire alarm bells; and to the country, through the telegraph lines.

Observations of sun spots, for position and area, are made with the Blackman telescope and the photoheliograph.

The Blackman telescope is also employed in occasional work and for educational purposes.

University Gymnasium.

Instructor.—R. TAIT MCKENZIE, B.A., M.D.

The classes, which are open to Students of all the Faculties, will meet at the University Gymnasium, at hours to suit, as far as possible, the convenience of Students, and which will be announced at the commencement of the Session.

THE WICKSTEED SILVER AND BRONZE MEDALS FOR PHYSICAL CULTURE (the gift of Dr. R. J. Wicksteed) are offered for competition to Students of the graduating class and to Students who have had instruction in the Gymnasium for two sessions: the silver medal to the former, the bronze medal to the latter.

The award of these medals is made by Judges, appointed by the Corporation of the University.

Every competitor for the silver medal is required to lodge with the Judges before the examination, a certificate of good standing in the graduating class signed by the Dean or Secretary of the Faculty to which he belongs, and the medal will not be awarded to any Student who may fail in his examination for the degree.

Classes for the Students of the DONALDA SPECIAL COURSE FOR WOMEN will be conducted by MISS BARNJUM.

University Societies.

THE GRADUATES' SOCIETY OF McGILL UNIVERSITY.

INCORPORATED 1880.

OFFICERS FOR 1893-94.

President:

W. DIXON, B.A.

Vice-Presidents:

GRACE RITCHIE, B.A., M.D.; A. FALCONER, B.A., B.C.L., AND HELEN Y. REID, B.A.

Treasurer:

J. H. BURLAND, B.A.Sc.

Secretary:

M. C. BAKER, D.V.S.

Resident Councillors: Maude E. S. Abbott, B.A.; F. G. Finley, M.D.; Prof. Arch McGoun, M.A., B.C.L.; F. Topp, B.A., B.C.L.; D. D. McTaggart, B.A.Sc.; and H. V. Truell, B.A., B.C.L.

Non-Resident Councillors: Hon. Judge Lynch, Knowlton; Sir James Grant, M.D., Ottawa; J. J. McLaren, Q.C., Toronto; Wilfrid T. Skaife, B.A.Sc., Cuba; A. E. Childs, B.A.Sc., Peterborough; and E. H. Hamilton, B.A.Sc., New York.

Auditors: Wm. Patterson, M.A., and Francis Topp, B.A., B.C.L.

OTTAWA VALLEY GRADUATES' SOCIETY.

ORGANIZED 1890.

Officers for 1893-94.

Honorary President: THE HON. SIR JOHN CALDWELL ABBOTT, K.C.M.G., D.C.L., etc., etc.

President: SIR JAMES A. GRANT, K.C.M.G., M.D., C.M., F.G.Sc., etc.

Vice-Presidents: HENRY P. WRIGHT, M.D., C.M., etc.
ROBERT H. CONROY, B.C.L. (Aylmer).
R. W. ELLS, LL.D., F.G.S.A., etc.

Treasurer; JEFFREY H. BURLAND, B.A.Sc., F.C.S.

Secretary: HENRY M. AMI, M.A., D.Sc.

Committee: ROBERT A. KLOCK, B.A., B.C.L.; D. B. DOWLING, B.A.Sc. R. H. W. POWELL, M.D., C.M.; GEO. C. WRIGHT, B.A., B.C.L.; ROBERT CASSELS, B.A., Q.C.

UNIVERSITY LITERARY SOCIETY.

ESTABLISHED 1869.

OBJECTS.—The encouragement of literary and scientific pursuits, and the promotion of self-culture among the members.

UNDERGRADUATES' LITERARY SOCIETY.

CONSTITUTED 1880.

President:	W. DONAHUE, B.A.
1st Vice-President:	F. H. GRAHAM.
2nd Vice-President:	J. C. WATT.
Treasurer:	F. LAMBERT.
Secretary:	H. A. HONEYMAN, B.A.
Assistant Secretary:	W. G. G. COLE.

Programme Committee:—C. C. GURD, D. T. DAVIS, J. M. WALLACE, S. G. ARCHIBALD, M. F. CONNOR.

McGILL COLLEGE YOUNG MEN'S CHRISTIAN ASSOCIATION.

OBJECT.—To promote the piety of its members and the cause of Christianity n the University.

MEMBERSHIP.—The active Membership of the Association shall consist of Graduates and Students of the University who are members of some Protestant church. Any Graduate and Student of good moral character may become an associate member. A social reception is given to new students at the beginning of the session.

SESSION 1893-94.

Hon. President:

SIR J. WM. DAWSON, LL.D., C.M.G., etc.

President:

FRANK J. DAY, Arts '94.

1st Vice-President: M. F. CONNOR, Sc. '94.

2nd Vice-President: W. A. DUFF, Sc. '94.

General Secretary: PERCY C. LESLIE.

Recording Secretary: W. J. LEROSSIGNOL, B.A., Med. '95.

Treasurer: R. O. ROSS, B.A., Med. '96.

Assistant-Treasurer: ANGUS GRAHAM, Arts '94.

CHAIRMEN OF COMMITTEES:

Religious Meeting: E. W. ARCHIBALD, B.A., Med. '96.

Social Purity: J. W. BAILLIE, B.A., Med. '95.

Hand Book: A. L. MUDGE, Science '94.

Social: ALB. MAHAFFY, B.A., Theol. '95.

Membership: H. S. SHAW, Med. '94.

Missionary: R. O. ROSS, B.A., Med. '96.

Music: W. P. GARRET, Arts '94.

Building: Prof. CARUS-WILSON, Treasurer.

McGILL UNIVERSITY ATHLETIC ASSOCIATION.

ESTABLISHED 1884.

Open for Membership to Undergraduates in this University.

Officers for 1893-94.

Honorary President.
SIR J. WM. DAWSON.

President.
G. H. MATHEWSON, B.A. (Medicine).

Vice-President.
W. DONAHUE, B.A. (Law).

Secretary.
CLAUD HICKSON (Arts).

Honorary Treasurer.
PROF. CHAS. E. MOYSE, A.B.

Treasurer.
H. C. BAKER, (Science).

IN AFFILIATION.

Foot Ball Club.

Hon. President—Prof. J. T. Nicolson.
Hon. Treasurer—Dr. Ruttan.
President—W. Donohue (Arts).
Vice-President—Geo. Mathewson (Med.).
Captain 1st XV.—C. Gaudet (Law).
Secretary—W. F. Angus (Sc. '95).
Treasurer—F. L. Johnstone (Med. '95).
Committee—L. Drum and H. Jacques' (Med.), J. Lynch and W. L. Bond (Arts), Geo. McDougall and J. Primrose (Science), G. MacDougall and J. Dunlop (Law).

Hockey Club.

President—W. H. Smyth, B.A. (Medicine).
Vice-President and Captain—F. A. C. Bickerdike (Arts).
Secretary Treasurer—F. M. Beckett (Science).

Cricket Club.

President—Professor Moyse, B.A.
Vice-President—J. F. Mackie, B.A.
B.C.L. and Secretary-Treasurer—F. W. Hibbard, M.A., B.C.L.

Lawn Tennis Club.

Hon. President—Sir J. W. Dawson.
President—C. H. McLeod, M.A.E.
Vice-President—G. G. Campbell, M.D.
Secretary—Wm. Cowie.
Treasurer—S. J. Evans, M.D.
Committee—Messrs. Skaife, B.A.Sc., Mills and Molson.

DELTA SIGMA SOCIETY.

ESTABLISHED 1884.

Officers for 1893-94.

President—Agnes James.
Vice-President—Jessie Brown.
Secretary-Treasurer—Katharine Travis.
Assistant Secretary—Winona Pitcher.
Committee—Misses Jackson, Botterell and Savage.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION.

ESTABLISHED 1887 (AS THEODORA SOCIETY).

Object.—The development of Christian character in the members, and the development of active Christian work particularly among the young women of the University. Open for membership to students of the Donalda special course for women.

SESSION 1893-94.

President—Isa Ogilvie.
Vice-President—Katharine Travis.
Corresponding Secretary—Maud Whiteaves.
Recording Secretary—Grace Henderson.
Treasurer—Justine Brown.
Convener of Devotional and Bible Study Committee.
Ethel S. Radford.
Convener of Theodora (Missionary) Committee.
C. G. Seymour.
Convener of Membership Committee.
Margaret Craig.

McGILL COLLEGE CLASSICAL CLUB.

For the purpose of fostering a greater interest in, and promoting tle further study of Classical Languages, Literature and Art.

Officers for 1893-94.

Hon. President—A. J. Eaton, Ph.D.
President—A. Mahaffy, B.A., '93
Vice-President—D. T. Davis, '94.
Secretary—A. Skeels, B.A., '93.
Treasurer—J. W. Hickson, B.A., '93.
Executive Committee—C. Mansur, B.A., '93; F. Bickerdke, '94

BANJO AND GLEE CLUB.

Officers for 1893-94.

Hon. President—Prof. C. H. McLeod.
President.—F. Lambert.
Vice-President—W. R. Askwith.
Sec. Treasurer—R. A. Gunn.
Leader of Glee Club—A. R. Holden.
Leader of Banjo Club—R. H. McDunnough.

SENIOR SOCIETY OF APPLIED SCIENCE.

Officers for 1893-94.

President—H. L. Herdt.
Vice-President—L. Lee Street, B.A.
Sec. Treasurer—J. H. Featherston.

University Extension Lectures.

UNDER THE SUPERINTENDENCE OF McGILL UNIVERSITY, MONTREAL, AND BISHOP'S COLLEGE, LENNOXVILLE.

SESSION 1893–94.

The Joint Board of Representatives of McGill University and the University of Bishop's College is prepared to organize and superintend courses of Lectures and Classes in populous centres for English-speaking audiences in the Province of Quebec.

OBJECT.

The purpose of the Local Lectures is to provide the means of higher education for persons of all classes and of both sexes engaged in the regular occupations of life. To obtain this object, the Lectures will be organized upon the general lines which have been worked out successfully from twenty years experience in England.

PLAN OF THE LECTURES.

In order to make the teaching at the same time attractive and thorough, a special method is followed.

1. The courses consist of ten weekly lectures, each lecture occupying an hour.

2. For about an hour preceding or following each lecture a Class is held for those students who wish to study the subject more thoroughly. The teaching in the class is conversational, and its object is to enable the Lecturer to answer questions or solve difficulties which have occurred to students, and to give advice as to text-books and other means of studying the subject.

The ten Lectures and Classes, which may be given in the three months before or three months after Christmas, form a continuous course on one subject.

3. In order to enable Students to follow the lecture readily and to carry away the substance of it, a printed syllabus in pamphlet form is prepared beforehand by the Lecturer for the use of Students.

4. Questions (printed in the syllabus) are set upon each Lecture. Those who desire to answer the questions write their answers at home during the week, and forward them to the Lecturer for correction and comment.

5. At the end of the Course an examination is held by the Lecturer, and another Examiner appointed for the purpose by the Joint Board of the Universities. The examination is not compulsory. Only those are admitted to it who have

attended the Lectures and Classes to the satisfaction of the Lecturer, and have done such an amount of weekly paper work as the Lecturer may have required.

A list of the Candidates who have satisfied the Lecturer and Examiner is published, the names being arranged in alphabetical order. The list also indicates those who are recommended both by the Lecturer and Examiner for special distinction. Certificates of Passing and of Distinction are granted, based upon (1) the Lecturer's Report of the weekly work, (2) the final examination.

It will be seen that this system is adapted at the same time to persons who desire merely a general acquaintance with the subjects taught and to Students who are anxious to make a more thorough study. The majority of the courses in the English system have been given in the evening, as the fundamental idea throughout has been education for busy people. The audiences have included persons drawn from all ranks of society and of the widest diversity of previous education and training.

SUBJECTS OF THE LECTURES.

The Universities expect to provide Lectures on subjects connected with

I. English Language and Literature.

II. History and Archæology.

III. Logic, Mental and Moral Philosophy, and Political Science.

IV. Chemistry and its applications.

V. Astronomy.

VI. Electricity and other branches of Physical Science.

VII. Botany and Zoology, Animal and Vegetable Physiology.

VIII. Mineralogy and Geology.

APPOINTMENT OF LECTURERS.

In accordance with the requirements of the General Council for the extension of University teaching, Lecturers are appointed by the Joint Board only upon recommendation by a University and after inquiry as to special qualifications and approval of the syllabus submitted. The choice of a lecturer and subject from the list approved by the Board is made in each case by the Local Centre concerned.

ORGANIZATION OF A CENTRE.

When it is desired to establish a course of Lectures, a Local Committee should first be got together, and a guarantee fund formed sufficient to cover the expenses of the Course. The Local Committee undertakes all responsibility for hire of rooms, lighting, printing and sale of tickets, etc.; it fixes the price of tickets according to the size and class of audience expected, with a view to making the Lectures self-supporting, and chooses the subject and the Lecturer, communicating its wishes to the Joint Board through its Secretary.

EXPENSES OF A COURSE.

The payment to the Joint Board for a complete course of Ten Lectures and Classes, with examination, is $150. In cases where a lecturer from a distance is chosen, or much apparatus is used, travelling expenses and the cost of hiring apparatus will be an extra charge.

Further information may be obtained from the Secretary to the Joint Board, Professor J. Cox, McGill University, Montreal.

May, 1893.

REGULATIONS

AS TO COLLEGE GROUNDS.

Under the regulations of the Governors, restricting the use of the exercise grounds to College clubs, and until permanent arrangements can be made in connection with a new Gymnasium on the grounds, the following rules are in force :—

1. The membership of all clubs using the grounds must consist exclusively of members of the University,

2. No damage must be done to fences, trees, grass, etc.

3. All clubs desiring to use the ground in the time of the statutory college sessions, *i.e.*, from September 1st to May 1st, must register their officers, objects, rules and time desired in the Principal's office, on or before September 20th in each year, when rights and privileges will be assigned to them.

4. Clubs desiring to use any portion of the grounds in the summer vacation, that is, from May 1st to September 15th, shall register as above on or before April 1st.

5. No clubs not so registered can be recognized, nor any right of students not organized in regular clubs.

6. No club has any right to invite strangers, except by special permission of the Board of Governors.

7. The University Athletic Association may use the grounds for the training of its members from September 1st to date of the College sports, at such times as may be necessary. Tickets shall be furnished to Students so in training.

8. All the above privileges are subject to be revoked at any time by resolution of the Governors.

BENEFACTORS OF

McGill University, Montreal.

1. GENERAL ENDOWMENTS AND SUBSCRIPTIONS FOR THE UNIVERSITY AND OF THE FACULTY OF ARTS.

1. ORIGINAL ENDOWMENT, 1811

THE HONORABLE JAMES McGILL, who was born at Glasgow, 6th Oct., 1744, and died at Montreal, 19th Dec., 1813, by his last will and testament, under date 8th January, 1811, devised the Estate of Burnside, situated near the City of Montreal, and containing forty-seven acres of land, with the Manor House and Buildings thereon erected, and also bequeathed the sum of ten thousand pounds in money unto the "Royal Institution for the Advancement of Learning," a Corporation constituted in virtue of an Act of Parliament passed in the Forty-first Year of the Reign of His Majesty, King George the Third, to erect and establish a University or College, for the purpose of Education and the advancement of learning, in the Province of Lower Canada, with a competent number of Professors and Teachers to render such Establishment effectual and beneficial for the purposes intended; requiring that one of the Colleges to be comprised in the said University should be named and perpetually be known and distinguished by the appellation of "McGill College."

The value of the above-mentioned property was estimated at the date of the bequest at.....$120,000

2. UNIVERSITY BUILDINGS, ETC.

THE WILLIAM MOLSON HALL, being the west wing of the McGill College buildings with the connecting Corridors and Class Rooms, was erected in 1861, through the munificent donation of the founder whose name it bears.

THE PETER REDPATH MUSEUM, the gift of the donor whose name it bears, was announced by him as a donation to the University in 1880, and was formally opened to the public August, 1882.

THE WILLIAM C. MCDONALD Physics building and equipment of same, the gift of William C. McDonald, Esq., announced by him as a gift to the University in 1890, and was formally opened February, 1893.

Lots for University buildings adjoining the College grounds fronting on McTavish St, presented by J. H. R. Molson, Esq.,—$42,500.

THE PETER REDPATH LIBRARY BUILDING, the gift of Peter Redpath, Esq., announced by him as a gift to the University in 1891.

3. THE DONALDA ENDOWMENT FOR THE HIGHER EDUCATION OF WOMEN.

This endowment, given by the Honorable Sir Donald A. Smith of Montreal, is for the education of women in the subjects of the Faculty of Arts, up to the standard of the examination for B A., in classes wholly separate, to constitute a separate Special Course or College for women,—$120,000.

4. ENDOWED CHAIRS, ETC.

THE MOLSON CHAIR OF ENGLISH LANGUAGE AND LITERATURE, in 1856, endowed by the Honorable John Molson, Thomas Molson, Esq., and William Molson, Esq., —$20,000, and supplemented in 1892 by John H. R. Molson, Esq., with a further sum of $20,000. Total $40,000.

THE PETER REDPATH CHAIR OF NATURAL PHILOSOPHY, in 1871, endowed by Peter Redpath, Esq.,—$20,000.

THE LOGAN CHAIR OF GEOLOGY, in 1871, endowed by Sir W. E. Logan, LL.D., F.R.S., and Hart Logan, Esq.,—$20,000.

THE JOHN FROTHINGHAM CHAIR OF MENTAL AND MORAL PHILOSOPHY, in 1873, endowed by Miss Louisa Frothingham,—$20,000.

THE MAJOR HIRAM MILLS CHAIR OF CLASSICS, in 1882, endowed by the last will of the late Major Hiram Mills of Montreal,—$42,000.

THE DAVID J. GREENSHIELDS CHAIR OF CHEMISTRY AND MINERALOGY, in the Faculties of Arts and Applied Science, in 1883, endowed by the last will of the late David J. Greenshields, Esq., of Montreal, with the sum of $40,000, half of which is devoted to the Faculty of Arts.

THE WILLIAM C. MCDONALD CHAIR OF PHYSICS, in 1890, endowed by William C. McDonald, Esq.,—$50,000.

THE JOHN FROTHINGHAM PRINCIPAL FUND, to be invested for the endowment of the Principalship of the University; founded by the Rev. Frederick Frothingham and Mrs. J. H. R. Molson,—$40,000.

THE CHARLES GIBB BOTANICAL ENDOWMENT, received by subscriptions, the endowment to be invested by the Board of Governors and the income devoted to the maintenance of the Chair of Botany in the Faculty of Arts, and to procuring appliances therefor.

Miss Elizabeth C. Orkney,—$2,000.

Mrs. Catherine Hill,—$200.

W. C. MCDONALD PHYSICS BUILDING Maintenance Fund, endowed by W. C. McDonald, Esq., to be invested and interest used to meet the expense of Heating, Lighting, Insurance, and salary of caretaker,—$40,000.

5. EXHIBITIONS AND SCHOLARSHIPS, ETC.

THE JANE REDPATH EXHIBITION, in the Faculty of Arts,—founded in 1868 by Mrs. Redpath, of Terrace Bank, Montreal, and endowed with the sum of $1,667.

THE MCDONALD SCHOLARSHIPS AND EXHIBITIONS, 10 in number, in the Faculty of Arts—founded in 1871, and endowed in 1882 with the sum of $25,000, by William C. McDonald, Esq.

THE CHARLES ALEXANDER SCHOLARSHIP, for Classics—founded in 1871 by Charles Alexander, Esq. Endowed in 1893 with the sum of $2,000.

THE BARBARA SCOTT SCHOLARSHIP FOR CLASSICAL LANGUAGE AND LITERATURE—founded by the last will of the late Miss Barbara Scott of Montreal, in the sum of $2,000, in 1884.

THE GEORGE HAGUE EXHIBITION—founded in 1881 in the Faculty of Arts.—Annual value, $125.

THE MAJOR HIRAM MILLS MEDAL AND SCHOLARSHIP—in the Faculty of Arts, founded by the will of the late Major Hiram Mills of Montreal, and endowed with the sum of $1,500.

T. M. THOMPSON, ESQ.—$250 for two Exhibitions in September, 1871; $200 for two Exhibitions in 1872,—$450.

REV. COLIN C. STEWART—for the "Stewart Prize in Hebrew,"—$60.

THE TAYLOR SCHOLARSHIP—founded in 1871, by T. M. Taylor, Esq.—Annual value, $100—terminated in 1878.

PROFESSOR ALEXANDER JOHNSON—for Scholarship for 3 Sessions, terminated 1886-7,—$350.

HER MAJESTY'S COMMISSION for the Exhibition of 1851—Nomination Scholarships for 1891 and 1893, value £150 annually, tenable for two years.

THE PHILIP CARPENTER FELLOWSHIP—founded by Mrs. Philip Carpenter, for the Maintenance of a Post-Graduation Teaching Fellowship or Scholarship in Natural Science or some branch thereof in the Faculty of Arts of McGill College, endowed with the sum of $7000.

A Lady to provide four free tuitions in the Faculty of Arts for session 1892-3.

6. ENDOWMENTS OF MEDALS AND PRIZES.

In 1856 Henry Chapman, Esq., founded a gold medal, to be named the "Henry Chapman Gold Medal," to be given annually in the graduating class in Arts. This Medal was endowed by Mr. Chapman in 1874, with the sum of $700.

In 1860 the sum of £200, presented to the College by H.R.H. the Prince of Wales, was applied to the foundation of a Gold Medal, to be called the "Prince of Wales Gold Medal," which is given in the graduating class for Honour Studies in Mental and Moral Philosophy.

In 1864 the "Anne Molson Gold Medal" was founded and endowed by Mrs. John Molson, of Belmont Hall, Montreal, for an Honour Course in Mathematics and Physics.

In the same year the "Shakespeare Gold Medal," for an Honour Course, to comprise and include the works of Shakespeare and the Literature of England from his time to the time of Addison, both inclusive, and such other accessory subjects as the Corporation may from time to time appoint, was founded and endowed by citizens of Montreal, on occasion of the three hundredth anniversary of the birth of Shakespeare.

In the same year the "Logan Gold Medal," for an Honour Course in Geology and Natural Science, was founded and endowed by Sir William Logan, LL.D., F.R.S., F.G.S., etc.

In 1874 a Gold and a Silver Medal were given by His Excellency the Earl of Dufferin, Governor General of Canada, for competition in the Faculty of Arts, and continued till 1878.

In 1875 the "Neil Stuart prize in Hebrew" was endowed by Neil Stuart, Esq., of Vankleek Hill, in the sum of $340.

In 1880 a Gold and Silver Medal were given by His Excellency the Marquis of Lorne, Governor General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science; continued till 1883.

In 1883 a Gold, Silver and Bronze Medal were given by R. J. Wicksteed, Esq., M.A., LL.D., for competition in "Physical Culture" by Students in the Graduating Class and 2nd year, who have attended the University Gymnasium. The Gold Medal was continued to 1889 and the Silver and Bronze have been continued to date.

In 1884 a Gold and a Silver Medal were given by His Excellency the Marquis of Lansdowne, Governor General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science, continued till 1888.

In 1888 a Gold and a Sliver Medal were given by His Excellency Lord Stanley, Governor General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science.

The "Charles G. Coster Memorial Prize" for general proficiency—given annually by Colin H. Livingstone, Esq., B.A., founded in 1889.

7. SUBSCRIPTIONS TO GENERAL ENDOWMENT.

1856.

John Gordon McKenzie, Esq.	$2000	Charles Alexander, Esq.	$600
Ira Gould, Esq.	2000	Moses E. David, Esq.	600
John Frothingham, Esq.	2000	Wm. Carter, Esq.	600
John Torrance, Esq.	2000	Thomas Patton, Esq.	600
James B. Greenshields, Esq.	1200	Wm. Workman, Esq.	600
William Busby Lambe, Esq.	1200	Hon. Sir A. T. Galt	600
Sir George Simpson, Knight	1000	Hon. Luther H. Holton	600
Henry Thomas, Esq.	1000	Henry Lyman, Esq.	600
John Redpath, Esq.	1000	David Torrance, Esq.	600
James McDougall, Esq.	1000	Edwin Atwater, Esq.	600
James Torrance, Esq.	1000	Theodore Hart, Esq.	600
Hon. James Ferrier	1000	William Forsyth Grant, Esq.	600
Harrison Stephens, Esq.	1000	Robert Campbell, Esq.	600
Henry Chapman, Esq.	600	Alfred Savage, Esq.	600
Honorable Peter McGill	600	James Ferrier, jun., Esq.	600
John James Day, Esq.	600	William Stephen, Esq.	600
Thomas Brown Anderson, Esq.	600	N. S. Whitney, Esq.	600
Peter Redpath, Esq.	600	William Dow, Esq.	600
Thomas M. Taylor, Esq.	600	William Watson, Esq.	600
Joseph McKay, Esq.	600	Edward Major, Esq.	600
Donald Lorn McDougall, Esq.	600	Honorable Charles Dewey Day	200
Hon. Sir John Rose	600	John R. Esdaile, Esq.	200

1871.

William Molson, Esq	$5000	T. W. Ritchie, Esq	$600
William C. McDonald, Esq	5000	Messrs. A. & W. Robertson	600
Thomas Workman, Esq	5000	Messrs. Sinclair, Jack & Co	250
John Frothingham, Esq	5000	John Reddie, M.D	100
J. H. R. Molson, Esq	5000	Wm. Lunn, Esq	100
John McLennan, Esq	2000	Kenneth Campbell, Esq	100
B. Gibb, Esq	600	R. A. Ramsay, Esq	100
W. Notman, Esq	600	William Rose, Esq	50

1881-82.

Hugh McLennan, Esq	$5000	O. S. Wood, Esq	$1000
G. A. Drummond, Esq	4000	J. S. McLachlan, Esq	1000
Geo. Hague, Esq	3000	J. B Greenshields, Esq. (London)	1000
M. H. Gault, Esq	2000	Warden King, Esq	1000
Andrew Robertson, Esq	1000	W. B. Cumming, Esq	1000
Robertson Campbell, Esq	1000	Mrs. Hew Ramsay	500
Sir J. Hickson and Lady Hickson	1000	R. A. Ramsay, Esq	500
Mrs. Andrew Dow	1000	H. H. Wood, Esq	500
Alexander Murray, Esq	1000	James Burnett, Esq	500
Miss Orkney	1000	Charles Gibb, Esq	500
Hector McKenzie, Esq	1000		

1883-84.

Edward Mackay, Esq $5000

8. SUBSCRIPTIONS FOR CURRENT EXPENSES, 1881-82.

Principal Dawson	$1000	Being	$1000
J. H. R. Molson, Esq	1000	Per annum, 5 years, being	5000
George Stephen, Esq	1000	" "	5000
Hon. Donald A. Smith	1000	" "	5000
David Morrice, Esq	200	" "	1000
Messrs. Gault Brothers & Co	200	" "	1000
Messrs. S. H. & A. S. Ewing	200	" "	1000
Hon. Robert Mackay	300	Per annum, 2 years, being	600
Jonathan Hodgson, Esq	100	" 5 "	500
Geo. M. Kinghorn, Esq	100	" 5 "	500
Thomas Craig, Esq	100	" 2 "	200
John Rankin, Esq	200	Being	200
John Duncan, Esq	200	"	200
Robert Benny, Esq	100	"	100
Miss E. A. Ramsay	100	"	100
Hugh Paton, Esq	50	For 2 years, being	100
George Brush, Esq	25	For 5 years, being	125
J. M. Douglas, Esq	50	Being	50
James Court, Esq	50	"	50
David J. Greenshields, Esq	300	"	300

1887-88.

John H. R. Molson	$1000	Per annum, 3 years, being	$3000
W. C. McDonald, Esq	1000	" " "	3000
Peter Redpath, Esq	1000	" " "	3000
Hon. Sir D. A. Smith, K.C.M.G	1000	" " "	3000
Hon. Jas. Ferrier	500	" " "	1500
Sir Joseph Hickson	500	" " "	1500
Hugh McLennan, Esq	250	" " "	750
E. B. Greenshields, Esq	250	" " "	750
George Hague, Esq	250	" " "	750
John Molson, Esq	250	" " "	750
Samuel Finley, Esq	250	" " "	750

Mrs. Mackay, $100.00 annually, 1889 to 1893 ..... $500

9. TO PROVIDE SESSIONAL LECTURERS.

Hon. Sir Donald A. Smith,	1891-92	$3500
Do	1892-93	4000
Mrs. John H. R. Molson,	1891-92	300
Do	1892-93	1000
Do	1893-94	1000

II. ENDOWMENTS AND SUBSCRIPTIONS FOR THE FACULTY OF APPLIED SCIENCE.

1. BUILDINGS, CHAIRS, ETC.

The William Scott Chair of Civil Engineering, in 1884, endowed by the last will of the late Miss Barbara Scott, of Montreal,—$30,000.

The David J. Greenshields Chair of Chemistry and Mineralogy, in the Faculties of Arts and Applied Science, in 1883, endowed by the last will of the late David J. Greenshields, Esq., of Montreal, with the sum of $40,000, half of which is devoted to Faculty of Applied Science.

The Thomas Workman Department of Mechanical Engineering—founded under the last will of the late Thomas Workman, Esq., and endowed with the sum of $117,000. The sum of $60,000 for the maintenance of a Chair of Mechanical Engineering, with the assistance, shops, machinery and apparatus necessary thereto, $57,000 to be expended in provision of necessary buildings, machinery and apparatus. Any balance of this to be added to the invested endowment for the maintenance of the said Department.

William C. McDonald, Esq., toward erection of Thomas Workman Workshops, $20,000.

The William C. McDonald Engineering Building, and Equipment of same—announced by the donor as a gift to the University in 1890, and formally opened February, 1893.

The William C. McDonald Chair of Electrical Engineering—endowed by William C. McDonald, Esq., in 1891 with the sum of $40,000.

Macdonald Engineering Building Maintenance Fund, endowed by W. C. McDonald, Esq., in 1892, the income to be devoted to paying for Heating, Lighting, Insurance and Salary of Mechanician, $45,000.

2. EXHIBITIONS AND SCHOLARSHIPS.

The Scott Exhibition—founded by the Caledonian Society of Montreal, in commemoration of the Centenary of Sir Walter Scott, and endowed in 1872 with the sum of $1,100, subscribed by members of the Society and other citizens of Montreal. The Exhibition is given annually in the Faculty of Applied Science —Annual value $60.

The Burland Scholarship—founded 1882, by J. H. Burland, B.A.Sc., $100 for a Scholarship in Applied Science, for three years, being $300.

Her Majesty's Commission for the Exhibition of 1851—Nomination Scholarships for 1891 and 1893, value £150 annually, tenable for two years.

3. MEDALS AND PRIZES.

In 1885 the British Association Gold Medal, for competition in the Graduating class in the Faculty of Applied Science, was founded by subscription of members of the British Association for the Advancement of Science, and by gift of the Council of the Association, in commemoration of its meeting in Montreal in the year 1884.

(See also under Medals and Prizes in Section 1.)

4. ENDOWMENTS AND SUBSCRIPTIONS FOR MAINTENANCE OF FACULTY OF APPLIED SCIENCE.

Endowment Fund.

Daniel Torrance, Esq	$5000
George Moffatt, Esq	1000
Charles J. Brydges, Esq	1000
Graduates' Endowment Fund — Class 1890—$70.00 a year for 5 years	$350

Annual Subscriptions, 1871-1879.

Hon. James Ferrier ($100 per annum, for 10 years)	$1000
Peter Redpath, Esq. ($400 per annum, for 10 years)	4000
John H. R. Molson, Esq. ($400 per annum for 10 years)	4000
George H. Frothingham, Esq. ($400 per annum, for 7 years)	2800
T. James Claxton, Esq. ($100 per annum, for 6 years)	600
Donald Ross, Esq. ($50 per annum, for 5 years)	250
Miss Mary Frothingham ($400 per annum, for 3 years)	1200
H. McLennan, Esq. ($100 per annum, for 5 years)	500
A. F. Gault, Esq. ($100 per annum, for 5 years)	500
Gilbert Scott, Esq. ($100 for 2 years)	200
Joseph Hickson, Esq. ($100 for 2 years	200
Principal Dawson, ($300 for 2 years	600
His Excellency the Marquis of Lorne	500
Mrs. Redpath (Terrace Bank)	100

Towards Maintenance of Engineering Department.

W. C. McDonald, Esq	$10,000
W. C. McDonald, Esq. (for advertising)	675

To provide lectures in Mechanical and Sanitary Engineering.

E. B. Greenshields, Esq	$ 50
J. E. Bovey, Esq	50
Professor H. T. Bovey	61
Jeffrey H. Burland, B.A.Sc., $100 for 2 years	200
Smaller amounts	40

Chair of Practical Chemistry.

Hon. C. Dunkin, M. P	$1200
Principal Dawson	1200
P. Redpath, Esq	$ 226

For Maintenance of Chair of Mining Engineering and Metallurgy, 1891.

R. B. Angus, Esq	$2000 00	
Mrs. Dow	1000 00	
Hugh McLennan, Esq	1000 00	
Miss Benny	1000 00	
T. A. Dawes, Esq.	750 00	
A. A. Ayer, Esq.	250 00	
G. W. Reid, Esq.	100 00	
Evans Bros	100 00	
	——	$6200 00
Payable in three years.		
Sir William Dawson	1500 00	
Alex. Stewart, Esq. (London, Eng.)	1500 00	
R. C. Reid, Esq	1500 00	
James Ross, Esq	600 00	
E. K. Greene, Esq.	750 00	
	4350 00	6200 00
Dr. T. Brainerd	750 00	
A. F. Gault, Esq.	750 00	
Messrs. H. & A. Allan	750 00	
Hector McKenzie, Esq	750 00	
Peter Lyall, Esq	750 00	
A. Robertson, Esq.	300 00	
John Duncan, Esq.	300 00	
Geo. Hague, Esq.	300 00	
Jonathan Hodgson, Esq.	300 00	
James Moore, Esq.	200 00	
Messrs. Ames & Holden	150 00	
Jas. Cooper, Esq.	150 00	
	——	11,300 00
		$17,500 00

Class Rooms for Faculty of Applied Science, 1888.

John H. R. Molson, Esq..... $3000 | W. C. McDonald, Esq..... 3000

Surveying and Geodetic Apparatus.

W. C. McDonald, Esq..... 1500

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5. LIST OF SUBSCRIBERS AND DONORS TO THE EQUIPMENT OF THE NEW ENGINEERING BUILDINGS OF McGILL UNIVERSITY, TO MAY, 1893.

Mrs. J. McDougall.....$4000
R. Hersey, Esq..... 1200
R. Reford, Esq..... 1000
Messrs. Garth & Co..... 500
Messrs. Warden King & Son 534
Messrs. Jordan & Locker...Equipment
W. Ogilvie, Esq $500
J. A. Pillow, Esq..... 250
James Shearer, Esq 200
G. W. Reed, Esq..... 100
Messrs. A. Ramsay & Son..... 100
F. Scholes, Esq..... 100
Messrs. W. McNally & Co..... 100
A. Ewan, Esq..... 100
Mrs. Redpath..... 100
E. Chanteloup, Esq 50
Charles Sheppard, Esq 200
G. Sadler, Esq. (Robin & Sadler). Belting ($400)
R. Reid, Esq..... .....Equipment
P Mitchell, Esq.....Equipment ($300)
Messrs. Twyford & Co. .....Equipment
D. McLaren, Esq..... .....$100
J. Robertson, Esq. $50 and Equipment
Kenneth Campbell, Esq..... $50
R. G. Reid, Esq 1000
W. Drysdale, Esq..... .....Tools
A. Macpherson, Esq..... .....Tools
Swan Lamp Mf'g. Co.. .....Lamps
Messrs. E. & C. Gurney & Co.....$604
James Ross, Esq..... .....$500
H. R. Ives, Esq.....Cupola
G. R. Prowse, Esq..... .....Equipment
Jonathan Hodgson, Esq $200
Messrs. Hughes & Stephenson..... Equipment
W. H. Hutton, Esq .....
G. A. Grier, Esq..... .....Equipment
S. Carsley, Esq..... .....$100
H. Graham, Esq 100
E. W. Rathbun, Esq..... 112
Messrs. Brodie & Harvey..... 50
W. Abbott, Esq .....Equipment
Henry Birks, Esq ....Clock
Kenneth Blackwell, Esq.....Equipment
A. Bremner, Esq $50
Campbell Tile Co., England, per Jordan & Locker .....Equipment
F. Chadwick, Esq.....Truss Models
Crosby Steam Valve Co., Boston. Indicator & Valves
John Date, Esq ....Equipment
D. Drysdale, Esq..... ....Tools
R. Forsyth, Esq..... .....Equipment
Messrs Frothingham & Workman.Tools
W. E. Gower, Esq .....
Messrs. Hearn & Harrison, per L. Harrison, Esq.....Barometer & Clock
A. Holden, Esq .....Equipment
John Kennedy, Esq ..... Equipment
J. Laurie & Bro .....Compound Engine
G. Brush, Esq..... .....Boiler
Messrs. Miller Bros. & Toms...Elevator
Wm. Kennedy, Esq. Owen Sound, Pump
Messrs. R. & W. Kerr .....Tools
A. J. Lawson, Esq.....Equipment
Messrs. D. & J. McCarthy, Sorel...$300
Norton (The) Emery Wheel Co., Worcester, U. S.....Equipment
Wm. Notman, Esq.....Photographs
Radiator Co., Toronto $500
E. M. Renouf, Esq ....Books
Scovill Manufacturing Co.. Equipment
P. W. St George, Esq .....Models
Messrs. Tees & Co.....Equipment
Messrs. James Walker & Co .....Tools
George Bishop, Esq.....Equipment
The Edison General Electric Co... Two 450 light dynamos
The Whittier Machine Co. (Boston). Electric Elevator
The Thomson-Houston Co. (Boston)..... .....Incandescent dynamos
The Royal Electric Co..... 12 Arc Light dynamos
W. Rutherford, Esq..... ....Equipment
Messrs. J. Bertram & Sons (Dundas).....24in. Planer
Messrs. R. W. Gardner & Son..... 16in. Lathe

Dominion Wire Manfg. Co., per F. Fairman, Esq.....Shaper
The B. F. Sturtevant Co. (Boston). Blowers
The Geo. Blake Pump Co. (New York and Boston).....Pump
Ashton Valve Co. (Boston)..... Sectional Valve
Messrs. Siemens Bros. (London, Eng.).....Cable Samples
A. T. Taylor, Esq $300
H. T. Bovey, Esq .....Books
The National Electric Mf'g Co..... Transformers
W. C. McDonald, Esq .....Equipment
M. Parker, Esq .....Equipment
Messrs. Robb & Armstrong..... 80 H. P. High Speed Engine
Messrs. Pratt & Whitney (Hartford, Conn.), Epicycloidal Gear Model
Messrs. Schaeffer & Budenberg (Brooklyn, N. Y.) ..Double Indicator
J. Costigan, Esq.....Equipment
H. Archbald, Esq .....Books
Herr Brockhaus .....Books
John Seeley, Esq .....Insulators
Messrs. Nalder Bros. & Co. (Eng.). Standard Cell
Warrington Wire Co...Cable Samples
The Pelton Water Wheel Company (New York).....Two Motors
Yale & Towne Manufacturing Co. (Stamford, Conn.) .....Equipment
The Crooker-Wheeler Electric Motor Co. (New York).....Motor
American Steam Gauge Company (Boston).....Indicator
Messrs. John Wiley & Sons (New York).....Books
Messrs. E. J. Maxwell & Co.Equipment.
Dr. Mason..... "
Messrs. R. Mitchell & Co... "
F. L. Wanklyn, Esq..... "
F. R. Redpath, Esq ..... "
Messrs. Irwin & Hopper.... "
Canadian General Electric Co. (Toronto) per F. Nichols, Esq..... "
R. Guilford Smith, Esq.....Books.
Henry Garth, Esq .....Equipment.
R. Gardner, Esq..... "
H. Paton, Esq..... "
Messrs. John Lovell & Sons.....Books
Professor Egleston (New York). Books
S. R. Earle, Esq.....Air Injector
EurekaTempered CopperCo.Equipment
Alf. Joyce..... $ 50
Hon. J. K. Ward..... 50
Peter Nicholson..... 100
W. Rodden. Esq..... .....Equipment.
R. Smith, Esq..... "
A. Palmer, Esq..... "
Prof. C. A. Carus-Wilson. "
Electric Welding Company (Boston)..... "
Professor Rogers (Waterville, Maine)..... "
Messrs. Sharp, Stewart & Co. (Manchester, Eng.)..... "
Messrs. Hadfield (Sheffield). "

The above representing a total value of about $80,000.

6. FACULTY OF APPLIED SCIENCE LIBRARY ENDOWMENT.

Hugh Paton.	$ 25	W. Rodden	25
A. Joyce	25	M. Parker	25
R. Gardner	50	Robin & Sadler	50
H. Garth	100		
Hughes & Stephenson	100		$700
R. Mitchell	300		

III. ENDOWMENTS AND SUBSCRIPTIONS IN AID OF THE FACULTY OF MEDICINE.

1. LEANCHOIL ENDOWMENT.

Hon. Sir Donald A. Smith, K.C.M.G..... $50,000

2. CAMPBELL MEMORIAL ENDOWMENT—$63,000.

Established to commemorate the service rendered to the Faculty during 40 years by the late Dean George W. Campbell, M.D., LL.D.

Mrs. G. W. Campbell	$2000
H. A. Allan, Esq	1500
Hon. Sir D. A. Smith	1500
Sir George Stephen, Bart	1000
R. B. Angus, Esq	1000
George A. Drummond, Esq	1000
Alex. Murray, Esq	1000
Robt. Moat, Esq	1000
W. C. McDonald, Esq	1000
A friend	1000
Duncan McIntyre, Esq	1000
Alex. Buntin, Esq	1000
A. F. Gault, Esq	1000
M. H. Gault, Esq	1000
G. W. Stephens, Esq	1000
James Benning, Esq	1000
R. P. Howard, M.D	1000
Frank Buller, M.D	1000
G. B. & J. H. Burland, Esqs	1000
Miss Elizabeth C. Benny	1000
J. C. Wilson, Esq	1000
Mrs. John Redpath	1000
Hon. John Hamilton	1000
Miss Orkney	1000
Hugh McKay, Esq	1000
Hector McKenzie, Esq	1000
Thomas Workman, Esq	1000
Hugh McLennan, Esq	1000
O. S. Wood, Esq	1000
James Burnett, Esq	500
Andrew Robertson, Esq	500
Robt. McKay, Esq	500
John Hope, Esq	500
Alex. Urquhart, Esq	500
E. K. & G. A. Greene, Esqrs	500
R. A. Smith, Esq	500
George Hague, Esq	500
J. K. Ward, Esq	500
Warden King, Esq	500
John Sterling, Esq	500
John Rankin, Esq	500
Messrs. Cantlie, Ewan & Co	500
Robt. Reford, Esq	500
Messrs. J. & W. Ogilvie	500
Randolph Hersey, Esq	500
John A. Pillow, Esq	500
S. Carsley, Esq	500
D. C. MacCallum, M.D	500
Messrs. McLachlan Bros	500
Messrs. S. Greenshields, Son & Co.	500
Jonathan Hodgson, Esq	500
Duncan McEachran, Esq., F. R. C.V.S	500
Geo. Ross, M.D	500
T. G. Roddick, M.D	500
Wm. Gardner, M.D	$500
G. P. Girdwood, M.D	500
G. E. Fenwick, M.D	500
Alex. Ramsay, Esq	500
Messrs. Cochrane, Cassils & Co.	500
Sir Joseph Hickson	500
Allan Gilmour, Esq. (Ottawa)	500
R. W. Shepherd, Esq	500
Miles Williams, Esq	300
Chas. F. Smithers, Esq	250
John Kerry, Esq	250
A. Baumgarten, Esq	250
R. W. Elmenhorst, Esq	250
W F. Lewis, Esq	250
Geo. Armstrong, Esq	250
J. M. Douglas, Esq	250
Messrs. H. Lyman, Sons & Co	250
William Osler, M.D	250
F. J. Shepherd, M.D	250
Benj. Dawson, Esq	200
R. Wolff, Esq	150
James Stuart, M.D	150
A. T. Paterson, Esq	100
H. W. Thornton, M.D. (New Richmond, Q)	100
M. E. David, Esq	100
C. B. Hanvey, M.D. (Yale, B.C.)	100
D. Cluness, M.D. (Nanaimo, B.C.)	100
W. Kinlock, Esq	100
Hua & Richardson	100
Mrs. Cuthbert (N. Richmond, Q.)	100
J. M. Drake, M.D	100
Hugh Paton, Esq	100
R. T. Godfrey, M.D	100
T. A. Rodger, M.D	100
W. A. Dyer, Esq	100
Geo. Wood, M.D. (Faribault, Minn.)	100
A. A. Browne, M.D	100
George Wilkins, M.D	100
R. L. McDonnell, M.D	100
Joseph Workman, M.D. (Toronto)	50
Hon. Sir A. T. Galt	50
Henry Lunam, B.A., M.D. (Campbellton, N.B.)	50
R. J. B. Howard, M.D	25
T. J. Alloway, M.D	25
Louis T. Marceau, M.D. (Napierville, Q.)	25
Griffith Evans, M.D. (Vet. Dept. Army)	25
J. J. Farley, M.D. (Belleville)	25
Henry R. Gray, Esq	25
J. E. Brouse, M.D. (Prescott)	20

R. F. Rinfret (Quebec)	$20	J. McDiarmid, M.D. (Hensall, O.)	$5
Robt. Howard, M.D. (St. Johns)	20	W J. Derby, M.D. (Rockland, O.)	5
Drs. J. & D. J. McIntosh (Vankleek Hill)	20	J. Gillies, M.D. (Teeswater, O.)	5
J H. McBean, M.D	15	J. B. Benson, M.D. (Chatham, N.B.)	5
J. C. Rattray, M.D. (Cobden, O.)	10	L. A. Fortier, M.D. (St. David, Q.)	5
E. H. Howard, M.D. (Lachine)	10	J. A. McArthur, M.D. (Fort Elgin, O.)	5
J. W. Oliver, M.D. (Clifton, O.)	10	John Campbell, M.D. (Seaforth, O.)	5
D. A. McDougall, M D. (Ottawa, O.)	10		
A. Poussette, M.D. (Sarnia, O.)	10		
A. Ruttan, M.D. (Napanee, O.)	10		
Jas. Gunn, M.D. (Durham, O.)	10		

3. ENDOWED CHAIRS, ETC.

Sir Donald A. Smith Chair of Pathology in the Faculty of Medicine, endowed in 1893 by the Hon. Sir Donald A. Smith with the sum of $50,000

Sir Donald A. Smith Department of Hygiene in the Faculty of Medicine, endowed in 1893 by the Hon. Sir Donald A. Smith with the sum of.. 50,000

Mrs. Mary Dow Bequest—Bequest by the will of the late Mrs. Mary Dow for the Faculty of Medicine, 1893, $10,000, less Government tax of 10 per cent $9,000

John H. R. Molson Donation—Donation by J. H. R. Molson, Esq., to the Faculty of Medicine of McGill University, $25,000 for the purchase of land, and $35,000 for additional building and equipment..... $60,000

Walter Drake, Esq., for benefit of Chair of Physiology, interest annually on $10,000, session 1891 to 1892-3 ..... $500

Mrs. John McDougall, toward formation of a Dr. Craik Fund..... $500

4. MEDALS AND SCHOLARSHIPS.

In 1865 the "Holmes Gold Medal" was founded by the Faculty of Medicine as a memorial of the late Andrew Holmes, Esq, M.D., LL.D., late Dean of the Faculty of Medicine, to be given to the best student in the graduating class in Medicine, who should undergo a special examination in all the branches, whether Primary or Final.

In 1878 the "Sutherland Gold Medal" was founded by Mrs. Sutherland of Montreal, in memory of her late husband, Prof. William Sutherland, M.D., for competition in the classes of Theoretical and Practical Chemistry in the Faculty of Medicine, together with creditable standing in the Primary Examinations.

The David Morrice Scholarship—in the subject of Institutes of Medicine, in the Faculty of Medicine—founded in 1881—value $100. (Terminated in 1883.)

5. LIBRARY, MUSEUM AND APPARATUS.

For the fittings of the Library and Museum of the Faculty of Medicine, 1872.

G. W. Campbell, A.M., M.D.	$1200	Robert Craik, M.D	$200
W. E. Scott, M.D	200	Geo. E. Fenwick, M.D	200
Wm. Wright, M.D	200	Joseph M. Drake, M.D	200
Robert P. Howard, M.D	200	George Ross, M.A., M.D	50
Duncan C. MacCallum, M.D	200		

The Professors and Lecturers in the Summer Sessions of the Faculty of Medicine ..... Donation to Apparatus Museum, Library, etc., of the Medical Faculty, 1887, $1,182; 1888, $1,023. 2205

For Physiological Laboratory of Faculty of Medicine, 1879.

Dr. Campbell	$100	Dr. Ross	$50
Dr. Howard	100	Dr. Roddick	50
Dr. Craik	100	Dr. Buller	50
Dr. MacCallum	100	Dr. Gardner	50
Dr. Drake	100	Dr. Osler	50
Dr. Godfrey	100		
Dr. McEachran, F.R.C.V.S.	100		$950

Cameron Obstetrical Collections.

Dr. J. C. Cameron $10,000

6. MISCELLANEOUS.

Anonymous Donor toward Expenses of Pathology for Session 1892–3. ..... $500

IV. ENDOWMENTS AND SUBSCRIPTIONS FOR THE FACULTY OF LAW.

1. ENDOWED CHAIRS, ETC.

The Gale Chair, in the Faculty of Law, endowed by the late Mrs. Andrew Stuart (*née* Agnes Logan Gale) of Montreal, in memory of her father, the late Honourable Mr. Justice Gale,—$25,000; part received, May, 1893.

The William C. McDonald Faculty of Law Endowment, founded by William C. McDonald, Esq. (1890)—$150,000.

2. MEDAL.

In 1865 the "Elizabeth Torrance Gold Medal" was founded and endowed by John Torrance, Esq., of St. Antoine Hall, Montreal, in memory of the late Mrs. Joan Torrance, for the best student in the graduating class in Law, and more especially for the highest proficiency in Roman Law.

V. LIBRARY, MUSEUM AND APPARATUS.

I. LIBRARY.

1. SPECIAL COLLECTION OF BOOKS PRESENTED TO THE LIBRARY

1. The Peter Redpath Collection of Historical Books, presented by Peter Redpath, Esq., of Montreal, 2676 Volumes, with subsequent additions.
2. The Robson Collection of works in Archæology and General Literature, presented by Dr. John Robson, of Warrington, England, 3436 Volumes.
3. The Charles Alexander Collection of Classical Works, presented by C. Alexander, Esq., of Montreal, 221 Volumes.
4. Frederick Griffin, Esq., Q.C., Collection of Books, being the whole of his Library, bequeathed by his will, 2695 Volumes.
5. The Hon. Mr. Justice MacKay, Collection of Books, being the whole of his Library, 2007 Volumes.
6. The "T. D. King Shakespeare Collection," presented by the Hon. Sir Donald A. Smith and W. C. McDonald, Esq., of Montreal, being 214 Volumes.

2. SUBSCRIPTIONS, ETC., TO LIBRARY.

John Thorburn, for purchase of Books	$ 90
Andrew Drummond, do for Applied Science	25
Hon. F. W. Torrance, for Mental and Moral Philosophy Book Fund	1000
Mrs. Redpath, for the endowment of the Wm. Wood Redpath Library Fund	1000
A Friend, by the Hon. F. W. Torrance	400
The Graduates in Arts and Applied Science of 1885 for purchase of Books	31
Do of 1886	28
The late R. A. Ramsay, Esq., Bequest for purchase of books	1000
Wm. Molson, Esq., for Library Fund	4000
Andrew Drummond, Esq., to Library Fund of Faculty of Applied Science	25
Hon. Sir Donald A. Smith, for purchase of books from the R.W. Boodle Library	200
Ottawa Valley Graduates Society, for binding books in the University Library	25
Hugh S. McLennan, Library Endowment, a gift from Estate late Hugh S. McLennan to the Library of McGill College, the income to be applied to binding	250
Peter Redpath, Esq., in aid of the new catalogue of the Library (1892)	500

3. SPECIAL COLLECTIONS PRESENTED TO THE MUSEUM.

1. The Holmes Herbarium, presented by the late Andrew F. Holmes, M.D.
2. The Carpenter Collections of Shells, presented by the late P. P. Carpenter, Ph. D.
3. The Collection of Casts of Ivory Carvings issued by the Arundel Society, presented by Henry Chapman, Esq.
4. The McCulloch Collection of Birds and Mammals, collected by the late Dr. M. McCulloch, of Montreal, and presented by his heirs.
5. The Logan Memorial Collections of Specimens in Geology and Natural History, presented by the heirs of the late Sir W. E. Logan, LL.D., F.R.S.
6. The Dawson Collection in Geology and Palæontology, being the Private Collections of Principal Dawson, presented by him to the Museum.
7. The Bowles Collection of Lepidoptera, presented by W. C. McDonald, Esq., and J. H. Burland, Esq.
8. R. Morton Middleton, Jr., London, Eng. Collection of Plants.

(See also "List of Donations to the Library and Museum," printed annually in the Calendar and Report of the Museum.

4. SUBSCRIPTIONS, ETC., FOR THE MUSEUM.

T. J. Claxton, Esq., for purchase of Specimens for Museum	$ 250
Wm. Molson, Esq., for Museum Fund	2000
Peter Redpath, Esq., for Museum Expenses, $1000 per annum from 1882 to 1892	11,000
Mrs. H. G. Frothingham, for the arrangement of Dr. Carpenter's Collection of Mazatlan shells	233
Peter Redpath, Esq., for improvements to Museum	1000
A Lady for Museum Expenses, from 1882 to 1891	$6000
A friend for the purchase of specimens for the Museum	1900
John H. R. Molson for purchase of book on "Butterflies of Eastern U.S. and Canada"	50
Hon. Sir Donald A. Smith, for mounting skin and skeleton of Musk Ox	150

5. FOR APPARATUS.

William Molson, Esq., Philosophical Apparatus, 1867	$ 500
John H. R. Molson, Esq., for the same	500
Peter Redpath, Esq., for the same	500
George Moffatt, Esq., for the same	250
Andrew Robertson, Esq., for the same	100
John Frothingham, Esq., for the same	100
David Torrance, Esq., for the same	100
A Telescope and Astronomical Instruments, the gift of Chas. T. Blackman, Esq.. of Montreal, and called after his name.	
Thos. J. Barron, B.A., for Philosophical Apparatus	50
J. H. R. Molson, Esq., Dynamo, Gas Engine and fixtures	1792
A Lady, for the purchase of Mining Models	1000
Thos. McDougall, Esq., for the same	25
J. Livesey, Esq., through Dr. Harrington, for the same	50
Geo. Stephen, Esq., for the same.	50
Chas. Gibb, B.A., donation for Apparatus in Applied Science	$50
The Local Committee for the reception (1881) of American Society of Civil Engineers { For the purpose of appliances for the department of Civil Engineering in Faculty of Applied Sce... }	475
Capt. Adams, Chemical Apparatus	10
J. H. Burland, B.A. Sc., Chemical Apparatus	25
Mrs. Redpath, Storage battery..	400
W. C. McDonald, Esq., fittings of upper Chemical Laboratory	2075
The Local Committee of the British Association for the Advancement of Science, to found the British Association Apparatus Fund in the Faculties of Arts and Applied Science, in commemoration of the meeting of the Association in Montreal in 1884	1500
A. J. Lawson, a Dynamo.	
Benjamin Dawson, 3 Microscopes.	

VI. SUBSCRIPTIONS FOR SPECIAL OBJECTS.

1. FOR A BUILDING FOR THE CARPENTER COLLECTION OF SHELLS, 1868.

Peter Redpath, Esq	$500
William Molson, Esq	500
Harrison Stephen, Esq	100
Robert J. Reekie, Esq	100
John H. R Molson, Esq	100
Sir Wm. E. Logan, Esq., F.R.S.	100
John Molson, Esq	100
Thos. Workman, Esq., M.P	100
Geo. H. Frothingham, Esq	100
Wm. Dow, Esq	$100
Thos. Rimmer, Esq	100
Andrew Robertson, Esq	100
Mrs. Redpath	100
Benaiah Gibb, Esq	50
Honorable John Rose	50
	$2,200

2. FOR THE ERECTION OF THE LODGE AND GATES.

William Molson, Esq	$100
John H. R. Molson, Esq	100
Willian Workman, Esq	100
Joseph Tiffin, jun., Esq	100
Thos. J. Claxton, Esq	100
James Linton, Esq	100
William McDougall, Esq	100
Charles J. Brydges, Esq	100
George A. Drummond, Esq	100
Thomas Rimmer, Esq	100
William Dow, Esq	100
John Frothingham, Esq	$100
James A. Mathewson, Esq	100
Peter Redpath, Esq	100
G. H. Frothingham, Esq	100
G. D. Ferrier, Esq	100
Geo. W. Warner, Esq	100
John Smith, Esq	100
Charles Alexander, Esq	100
J. Evans, Esq	100
Henry Lyman, Esq	100

3. FOR THE SUPPORT OF THE CHAIR OF BOTANY, 1883-84.

Principal Dawson	$500	per annum, for 5 years, being			$2500
Hon. Sir D. A. Smith	250	"	"	"	1250
J. H. R. Molson, Esq	100	"	"	"	500
Mrs. J. H. R. Molson	100	"	"	"	500
G. Hague, Esq	100	"	"	"	500
Mrs. Redpath	100	"	"	"	500
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Robert Moat, Esq	100	"	"	"	500
W. C. McDonald, Esq	100	"	"	"	500
Charles Gibb, Esq	50	"	"	"	250
Miss Orkney	50	"	"	"	250
Robert McKay, Esq	50	"	"	"	250
Mrs. Molson	50	"	"	"	250
Mrs. John Molson	50	"	"	"	250
John Stirling, Esq	50	"	"	"	250
Warden King, Esq	50	"	"	"	250
Miss Hall	50	"	"	"	250
Robert Angus, Esq	50	"	"	"	250
D. A. P. Watt, Esq	50	"	"	"	250
Hugh McLennan, Esq	25	"	"	"	125
Sir Joseph Hickson	10	"	"	"	50
Mrs. Phillips	10				10

4. SUBSCRIPTIONS TO BOTANIC GARDEN, 1890-91.

Hugh McLennan, Esq	$100	Jonathan Brown, Esq	$100
Gilman Cheney, Esq	100	Jonathan Hodgson, Esq	100
James Johnston, Esq	100	Robert Mackay, Esq	100
James Slessor, Esq	100	H. Shorey, Esq	50
A friend, Esq	100	J. S. Shearer, Esq	50
Hugh Graham, Esq	100	Geo. Sumner, Esq	25
A. F. Gault, Esq	100	A. Ramsay & Co	25
W. T. Costigan, Esq	100	Garth & Co	25

5. TO ERECT PLANT HOUSE IN BOTANIC GARDEN.

Hon. Sir Donald A. Smith	$362 00
John H. R. Molson, Esq	361 51
William C. McDonald, Esq	361 02
	$1084 53

6. IN AID OF THE CHAIR OF HEBREW.

Warden King, Esq	in 1889	$50	per annum, 3	years, being		$150
Principal Sir William Dawson	"	50	"	"	"	150
Hon. Hugh Mackay	"	50	"	"	"	150
A. F. Gault, Esq	"	25	"	"	"	75
Geo. Hague, Esq	"	25	"	"	"	75
T. A. Dawes, Esq	"	25	"	"	"	75
S. Carsley, Esq	"	25	"	"	"	75
S. Davis, Esq., in 1892						20
Warden King, Esq., in 1892		$50	per annum, for 3	years		150
A. F. Gault, Esq		50	"	"		150
Robert Mackay, Esq		50	"	"		150
Hugh McLennan, Esq		25	"	"		75
George Hague, Esq		25	"	"		75
T. A. Dawes, Esq		25	"	"		75
S. Carsley, Esq						25
Murphy, Esq						25

7. FOR MUSICAL INSTRUCTION IN THE DONALDA SPECIAL COURSE FOR WOMEN.

Hon. Sir Donald A. Smith, session 1889-90..... 200
" " " " 1890-91..... 200

8. FOUNDER'S TOMB.

R. A. Ramsay, M.A., B.C.L., to defray the expenses of re-erecting the tomb of the late Hon. James McGill..... $150

9. UNIVERSITY PORTRAITS AND BUSTS.

Portrait of the Founder, presented by the late Thomas Blackwood, Esq.

Portrait of William Molson, Esq., presented to the University.

Bust of William Molson, Esq., by Marshall Wood, presented by Graduates of the University.

Portrait of Peter Redpath, Esq., painted by Sydney Hodges, presented by Citizens of Montreal.

Portrait of Rev. Dr. Leach, Esq., by Wyatt Eaton, presented by Graduates of the University.

Portrait of Sir William Dawson, by Wyatt Eaton, presented by Friends and Graduates of the University.

10. ENDOWMENT, HELD IN TRUST BY THE BOARD OF ROYAL INSTITUTION.

The "Hannah Willard Lyman Memorial Fund," contributed by subscription of former pupils of Miss Lyman, and invested as a permanent endowment, to furnish annually a Scholarship or Prize in a "College for Women" affiliated to the University, or in classes for the Higher Education of Women approved by the University. The amount of the fund is at present $1,100.

VII. THE GRADUATES' FUNDS.

1. THE FUND FOR ENDOWMENT OF THE LIBRARY.

The Graduates' Society of the University, in 1876, passed the following Resolution:—

Resolved:—"That the members and graduates be invited to subscribe to a "fund for the endowment of the Libraries of the University; said fund to be in- "vested and the proceeds applied under the supervision of the Council of the "Society in annual additions to the Libraries; an equitable division of said pro- "ceeds to be made by the Council between the University Library and those of "The Professional Faculties."

In terms thereof the following subscriptions have been announced to date, May 1st, 1889. They are payable in one sum, or in instalments, as subscribers have elected.

Alphabetically arranged.

Baynes, O'Hara, B.C.L.	$ 50
Bethune, M. B., M.A., B.C.L.	50
Blackader, Alex. D., B.A., M.D.	50
Burland, J. H., B.A.Sc.	120
Browne, A. A., B.A., M.D.	50
Cline, J. D., B.A., M.D.	25
Cushing, Lemuel, LL.D., B.C.L.	25
Dougall, J. R., M.A.	50
Ells, R. W., LL.D.	50
Empson, Rev. J., M.A.	25
Gardner, Wm., M.D.	100
Gibb, Charles, B.A.	50
Gilman, F. E., LL.D., B.C.L.	100
Gould, C. H., B.A.	100
Hall, J. S., jun., B.A., B.C.L.	50
Hall, Rev. W., M.A.	10
Harrington, B. J., B.A., Ph.D.	50
Holton, Edward, B.C.L.	100
Hutchinson, M., B.C.L.	5
Keller, F. J., B.C.L.	25
Kelley, F. W., B.A., Ph.D.	100
Laing, Rev. R., M.A.	100
Lyman, F. S., B.A., B.C.L.	$ 50
Lyman, H. H., M.A.	100
Mackenzie, Fred., B.C.L.	100
Maclaren, J. J., M.A., D.C.L.	100
McLeod, C. H., Ma.E.	50
Macmaster, D., B.C.L.	100
Marler, Wm. deM., B.A., B.C.L.	125
McCord, D. R., M.A., B.C.L.	100
McGregor, James, LL.D.	80
Molson, Wm., M.D.	100
Osler, Wm., M.D.	100
Ramsay R. A., M.A., B.C.L.	100
Rexford, Rev. E. I., B.A.	50
Robertson, Alex., B.A.	100
Robins, S. P., LL.D.	50
Roddick, T. G., M.D.	100
Ross, George, M.A., M.D.	100
Shepherd, F. J., M.D.	100
Torrance, J. F., B.A., B.A.Sc.	100
Trenholme, N. W., M.A., D.C.L.	100
Total to date	$3,090

2. THE DAWSON FELLOWSHIP FOUNDATION.

The Graduates Society of the University, in 1880, and in commemoration of the completion by Dr. Dawson of his twenty-fifth year as Principal, resolved to raise, with the assistance of their friends, a fund towards the Endowment of the Fellowship, under the above name.

Details of the scheme can be had from the Treasurer, J. H. Burland, B.A.Sc. The following subscriptions have been announced to date, May 1st, 1889. They are payable in one sum, in instalments, without interest or with interest till payment of capital, as subscribers have elected.

Alphabetically arranged.

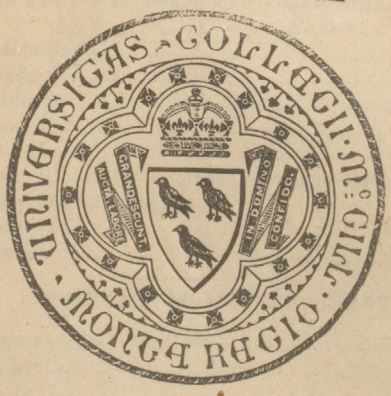
Abbott, H., B.C.L.	$ 60
Archibald, H., B.A.Sc.	20
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Cruickshank, W. G., B.C.L.	100
Dawson, W. B., M.A., Ma.E.	50
Dougall, J. R., M.A.	250
Gibb, C., B.A.	100
Hall, Rev. Wm., M.A.	100
Hall, J. S., jun., B.A., B.C.L.	100
Harrington, B. J., B.A., Ph.D.	50
Hutchinson, M., B.C.L.	400
Kirby, J., LL.D., D.C.L.	50
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Lighthall, W. D., M.A., B.C.L.	100
Lyman, H. H., M.A.	$ 100
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McCormick, D., B.C.L.	100
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McGoun, A., jun., M.A., B.C.L.	50
McLennan, J. S., B.A.	100
Ramsay, R. A., M.A., B.C.L.	50
Spencer, J. W., B.A.Sc., Ph.D.	50
Stephen, C. H., B.C.L.	100
Stewart, D. A., B.A.Sc.	20
Stewart, J., M.D.	60
Tait, M. M., B.C.L.	100
Taylor, A. D., B.A., B.C.L.	100
Trenholme, N. W., M.A., D.C.L.	400
Total to date	$3,010

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OF THE

McGILL UNIVERSITY,

MONTREAL.



SESSION OF 1892-3.

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FACULTY OF ARTS.

ENTRANCE, EXHIBITION AND SCHOLARSHIP
EXAMINATIONS,

SEPTEMBER, 1892.

FACULTY OF ARTS.

FIRST YEAR ENTRANCE.

GREEK.

THURSDAY, SEPT. 15TH :—MORNING, 9 TO 12.

Examiners,..... { A. JUDSON EATON, PH.D
JOHN L. DAY, B.A.

I. GRAMMAR.

1. Classify the consonants.

2. Define *crasis, enclitic synizesis, anastrophe, syncope.* Illustrate any three.

3. (*a*) Decline (marking *stem* and accenting): πολίτης, νύξ, νεώς, ναῦς, φλέψ, θρίξ, κέρας, (*β*) Compare: ἐχθρός, ταχύς, σαφής, ῥᾴδιος, ἄνω.

4. Distinguish the aorist and imperfect: εἰμί and εἶμι; ἤ and ἦ; οὐ and μή.

5. How are verbs in ω classified? Explain the formation of the different tenses in the indicative active of any pure verb in ω.

6. Write the first person singular of the 2nd aorist active in all the moods of the verbs τίθημι and ἵστημι; inflect ἵστημι in the indic. imperf. pass., and εἰμί in the pres. indic. and subjunctive.

7. Give the principal parts of τυγχάνω, λείπω, τίκτω, μανθάνω, δίδωμι ἁλ σκομαι, πίπτω.

8. Translate:—(*a*) Cyrus was a great general. *b*) The boy wrote (aor.) a letter to his sister. (*c*) The army marched against the city. (*d*) Many have done this who are not just.

II.

[Select one from the following passages 1 to 5 (with their accompanying questions.]

1. Translate, Homer, Iliad, Bk. I.:—

(*a*) Ὣς φάτο· Πηλείωνι δ' ἀχος γένετ'; ἐν δὲ οἱ ἦτορ
στήθεσσιν λασίοισι διάνδιχα μερμήριζεν,
ἢ ὅγε φάσγανον ὀξὺ ἐρυσσάμενος παρὰ μηροῦ
τοὺς μὲν ἀναστήσειεν, ὁ δ' Ἀτρεΐδην ἐναρίζοι
ἠὲ χόλον παύσειεν ἐρητύσειέ τε θυμόν.
εἷος ὁ ταῦθ' ὥρμαινε κατὰ φρένα καὶ κατὰ θυμὸν,
ἕλκετο δ' ἐκ κολεοῖο μέγα ξίφος, ἦλθε δ' Ἀθήνη
οὐρανόθεν· προ γὰρ ἧκε θεὰ λευκώλενος Ἥρη,
ἀμφω ὁμῶς, θυμῷ φιλέουσά τε κηδομένη τε.
στῆ δ' ὄπιθεν, ξανθῆς δὲ κόμης ἕλε Πηλείωνα,
οἴῳ φαινομένη· τῶν δ' ἄλλων οὔτις ὁρᾶτο.
θάμβησεν δ' Ἀχιλεὺς, μετὰ δ' ἐτράπετ', αὐτίκα δ ἔγνω
Παλλάδ' Ἀθηναίην· δεινὼ δέ οἱ ὄσσε φάανθεν.

(*β*) Αὐτὰρ ὁ ἔγνω ἦσιν ἐνὶ φρεσὶ, φώνησέν τε.
"Χαίρετε, κήρυκες, Διὸς ἄγγελοι ἠδὲ καὶ ἀνδρῶν.
Ἄσσον ἴτ'· οὔ τί μοι ὔμμες ἐπαίτιοι, ἀλλ' Ἀγαμέμνων,
Ὅ σφῶι προΐει Βρισηΐδος εἵνεκα κούρης.
Ἀλλ' ἄγε, διογενὲς Πατρόκλεις, ἔξαγε κούρης.
Καί σφωϊν δὸς ἄγειν. τὼ δ' αὐτὼ μάρτυροι ἔστων
Πρός τε θεῶν μακάρων πρός τε θνητῶν ἀνθρώπων
Καὶ πρὸς τοῦ βασιλῆος ἀπηνέος, εἴ ποτε δ' αὖτε
Χρειὼ ἐμεῖο γένηται ἀεικέα λοιγὸν ἀμῦναι
Τοῖς ἄλλοις.

Scan the first five lines of (*β*). Give Attic for Epic forms in (*a*). What are the main peculiarities in the formation of the Homeric verb? Account for the mood of *ἀναστήσειεν*, and for the case of *κόμης*, Give the principal parts of *ἄγε* and *ὁρᾶτο*. Derive *ἐκάεργον*, *λεοκώλενος* and *διογενές* Who is the speaker in (*β*)? *εἰ....γένηται*. Explain the construction.

2. Translate, Anabasis, Bk. I:—

(*a*) Κῦρος μὲν οὖν οὕτως ἐτελεύτησεν, ἀνὴρ ὢν Περσῶν τῶν μετὰ Κῦρον τὸν ἀρχαῖον γενομένων βασιλικώτατός τε καὶ ἀρχεῖν ἀξιώτατος, ὡς παρὰ πάντων ὁμολογεῖται τῶν Κύρου δοκούντων ἐν πείρᾳ γενέσθαι. Πρῶτον μὲν γὰρ ἔτι παῖς ὢν, ὅτ' ἐπαιδεύετο καὶ σὺν τῷ ἀδελφῷ καὶ σὺν τοῖς ἄλλοις παισί, πάντων πάντα κράτιστος ἐνομίζετο. Πάντες γὰρ οἱ τῶν ἀρίστων Περσῶν παῖδες ἐπὶ ταῖς βασιλέως θύραις παιδεύονται· ἔνθα πολλὴν μὲν σωφροσύνην καταμάθοι ἂν τις, αἰσχρὸν δ' οὐδὲν οὔτ, ἀκοῦσαι οὔτ' ἰδεῖν ἔστι. Θεῶνται δ' οἱ παῖδες καὶ τοὺς τίμωμένους ὑπὸ βασιλέως καὶ ἀκούουσι, καὶ ἄλλους ἀτιμαζομένους· ὥστε εὐθὺς παῖδες ὄντες μανθάνουσιν ἄρχειν τε καὶ ἄρχεσθαι.

(β) Δῶρα δὲ πλεῖστα μὲν οἶμαι εἰς γε ὧν ἀνὴρ ἐλάμβανε διαπολλάταῦτα δὲ πάντων δὴ μάλιστα τοῖς φίλοις διεδίδου πρὸς τοὺς τρόπους ἑκάστου σκοπῶν καὶ ὅτου μάλιστα ὁρῴη ἕκαστον δεόμενον. καὶ ὅσα τῷ σώματι αὐτοῦ κόσμον πέμποι τις ἢ ὡς εἰς πόλεμον ἢ ὡς εἰς καλλωπισμόν, καὶ περὶ τούτων λέγειν αὐτὸν ἔφασαν, ὅτι τὸ μὲν ἑαυτοῦ σῶμα οὐκ ἂν δύναιτο τούτοις πᾶσι κοσμηθηναι, φίλοις δὲ καλῶς κεκοσμημένους μέγιστον κόσμον ἀνδρὶ νομίζοι.

πάντα κράτιστος—explain this usage of πάντα, and also the mood of καταμάθοι ἄν. οὐτ ἰδεῖν ἔστι—what infinitive? ὥστε....μανθάνουσι—why is the indic. here used with ὥστε, and not the infinitive? Principal parts of ἐλάμβανε, and δεόμενον. Derive καλλωπισμόν and κοκμηθῆναι.

3. Translate, Anabasis, Bk. II:—

Ἀκούσας δὲ ὁ Τισσαφέρνης ἔφη· Ταῦτα ἐγὼ ἀπαγγελῶ βασιλεῖ καὶ ὑμῖν πάλιν τὰ παρ' ἐκείνου· μέχρι δ' ὅν ἐγὼ ἥκω, αἱ σπονδαὶ μενόντων· ἀγορὰν δὲ ἡμῖς παρέξομεν. Καὶ εἰς μὲν τὴν ὑστεραίαν οὐχ ἥκεν· ὥσθ' οἱ Ἕλληνες ἐφρόντιζον· τῇ δὲ τρίτῃ ἥκων ἔλεγεν, ὅτι διαπεπραγμένος ἥκοι παρὰ βασιλέως δοθῆναι αὐτῷ σώζειν τοὺς Ἕλληνας, καίπερ πάνυ πολλῶν ἀντιλεγόντων, ὡς οὐκ ἄξιον εἴη βασιλεῖ ἀφεῖναι τοὺς ἐφ' ἑαυτὸν στρατευσαμένους. Τέλος δὲ εἶπε, καὶ νῦν ἐξεστιν ὑμῖν πιστὰ λαβεῖν παρ' ἡμῶν ἢ μὴν φιλίαν παρέξειν ὑμῖν τὴν χώραν καὶ ἀδόλως ἀπάξειν εἰς τὴν Ἑλλάδα ἀγορὰν παρέχοντας· ὅπου δ' ἂν μὴ ᾖ πρίασθαι. Λαμβάνειν ὑμᾶς ἐκ τῆς χώρας ἐάσομεν τὰ ἐπιτήδεια. Ὑμᾶς δ' αὖ ἡμῖν δεήσει ὁμόσαι ἢ μὴν πορεύεσθαι ὡς διὰ φιλίας ἀσινῶς, σῖτα καὶ ποτὰ λαμβάνοντας, ὁπόταν μὴ ἀγορὰν παρέχωμεν, ἣν δὲ παρέχωμεν ἀγοράν, ὠνουμένους ἔξειν τὰ ἐπιτήδεια. Ταῦτα ἔδοξε, καὶ ὤμοσαν καὶ δεξιὰς ἔδοσαν Τισσαφέρνης καὶ ὁ τῆς βασιλέως γυναικὸς ἀδελφὸς τοῖς τῶν Ἑλλήνων στρατηγοῖς καὶ λοχαγοῖς καὶ ἔλαβον παρὰ τῶν Ἑλλήνων. Μετὰ δὲ ταῦτα Τισσαφέρνης εἶπε, Νῦν μὲν δὴ ἀπειμι ὡς βασιλέα· ἐπειδὰν δὲ διαπράξωμαι ἃ δέομαι, ἥξω συσκευασάμενος ὡς ἀπάξων ὑμᾶς εἰς τὴν Ἑλλάδα καὶ αὐτὸς ἀπιὼν ἐπὶ τὴν ἐμαυτοῦ ἀρχήν.

What case usually follows ἀκούω? τῇ δὲ τρίτῃ—supply the ellipsis. ἥκοι and ἄξιον εἴη—explain the moods. Derive ἐπιτήδεια, ἀδόλως and σπονδαί. Why is ὠνουμένους accus? ταῦτα ἔδοξε—what is noticeable here? Principal parts of ὤμοσαν and ἀπάξειν, ὡς βασιλέα—remark on the use of ὡς as a preposition. What other meaning has ἀρχή? Translate and explain the construction of the following extt.:—(a) τὸ στράτευμα ἐπορίζετο σῖτον * * * κόπτοντες τοὺς βοῦς καὶ ὄρους. (b) ἴσθ μέντοι ἀνόητος ὤν. εἰ οἶει ἂν τὴν ὑμετέραν ἀρετὴν περιβενέσθαι τῆς βασιλέως δυνάμεως. (c) οἶμαι γὰρ ἂν οὐκ ἀχαρίστως μοι ἔξειν οὔτε πρὸς ὑμῶν οὔτε πρὸς τῆς Ἑλλάδος ἁπάσης.

4. Translate, Anabasis, Bk. III:—

Ἀναστὰς δὲ πάλιν εἶπε Ξενοφῶν· Ὦ ἄνδρες, ἀκούσατε ὧν προσδεῖν δοκε

μοι. δῆλον ὅτι πορεύεσθαι ἡμᾶς δεῖ ὅπου ἔξομεν τὰ ἐπιτήδεια· ἀκούω δὲ κώμας εἶναι καλὰς οὐ πλεῖον εἴκοσι σταδίων ἀπεχούσας. Οὐκ ἂν οὖν θαυμάζοιμι, εἰ οἱ πολέμιοι, ὥσπερ οἱ δειλοὶ κύνες τοὺς μὲν παριόντας διώκουσι τε καὶ δάκνουσιν, ἢν δύνωνται, τοὺς δὲ διώκοντος φεύγουσιν, εἰ καὶ αὐτοὶ ἡμῖν ἀπιοῦσιν ἐπακολουθοῖεν. Ἴσως οὖν ἀσφαλέστερον ἡμῖν πορεύεσθαι πλαίσιον ποιησαμένους τῶν ὅπλων, ἵνα τὰ σκευοφόρα καὶ ὁ πολὺς ὄχλος ἐν ἀσφαλεστέρῳ ᾖ εἰ οὖν νῦν ἀποδειχθείη τίνα χρὴ ἡγεῖσθαι τοῦ πλαισίου καὶ τ πρόσθεν κοσμεῖν, καὶ τίνας ἐνὶ τῶν πλευρῶν ἑκατέρων εἶναι. τίνας δ' ὀπισθοφυλακεῖν, οὐκ ἂν, ὁπότε οἱ πολέμιοι ἔλθοιεν, βουλεύεσθαι ἡμᾶς δέοι, ἀλλά χρῷ μηθ' ἂν εὐθὺς τοῖς τεταγμένοις. Εἰ μὲν οὖν ἄλλος τις βέλτιον ὁρᾷ, ἄλλως ἐχέτω, εἰ δέ μή, Χειρίσοφας μὲν ἡγείσθω, ἐπειδὴ καὶ Λακεδαιμόνιός ἐστι· τῶν δέ πλευρῶν ἑκατέρων δύο τῶν πρεσβωτάτων στρατηγὼ ἐπιμελείσθων· ὀπισθοφυλακῶμεν δ' ἡμεῖς οἱ νεώτατοι, ἐγώ τε καὶ Τιμασίων, τὶ νῦν εἶναι.

Account for the case of ων, σταδίων, τοῖς τεταγμένοις : and for the mood of δύνωνται, εἴη, ἔλθοιεν. Explain the πλαίσιον. What is meant by ὄχλος ? ἐν ἀσφαλεστέρῳ—supply the ellipsis and give derivation. How much is a στάδιον ? a παράσαγγα ? Principal parts of φεύγω, ἀποδειχθείη, ἀνατείνω. Derive σκευοφόρα.

5. Translate, Anabasis, Bk. IV :—

Τὸ μέν οὖν ὄρος ἐστὶ τὸ ὁρώμενον πλέον ἢ ἐφ ἑξήκοντα στάδια, ἄνδρες δ' οὐδαμοῦ φυλατοντες ἡμᾶς φανεροί εἰσιν ἀλλ' ἢ κατ' αὐτὴν ὁδόν. πολὺ οὖν κρεῖττον τοῦ ἐρήμου ὄρους καὶ κλέψαι τι πειρᾶσθαι λαθόντας καὶ ἁρπάσαι φθάσαντες, εἰ δυναίμεθα, μᾶλλον ἢ πρὸς ἰσχυρὰ χωρία καὶ ἀνδρας παρεσκευασμένους μάχεσθαι. πολύ γὰρ ῥᾷον ὀρθιον ἀμαχεὶ ἰέναι ἢ ὁμαλὲς ἔνθεν καὶ ἐνθεν πολεμίων ὄντων, καὶ νέκτωρ ἀμάχει μᾶλλον ἂν τά προ ποδῶν ὁρῳη τις ἢ μεθ' ἡμέραν μαχόμενος, καὶ ἡ τραχεῖα τοῖς ποσὶν ἀναχεὶ ἰοῦσιν εὐμενεστέρα ἢ ἡ ὁμαλὴ τὰς κεφλὰς βαλλομένοις. Καὶ κλέψαι οὐκ ἀδύνατόν μοι δοκεῖ εἶναι, ἐξὸν μὲν νυκτὸς ἰέναι, ὡς μὴ ὁρᾶσθαι, ἐξὸν δὲ ἀπελθεῖν τοσοῦτον ὡς μὴ αἴσθησιν παρέχειν. δοκοῦμεν δ' ἂν μοι ταύτῃ προσποιούμενοι προσβάλλειν ἐρημοτέρῳ ὂν τῷ ὄρει χρῆσθαι. μένοιεν γὰρ αὐτοῦ μᾶλ ον ἀθρόοι οἱ πολέμιοι.

τὴν ὁδόν—mention other nouns of the second declension which are feminine, κρεῖττον what is the position ? Principal parts of λαθόντας and ἁρπάσαι. Derive ἀμαχεί and ὁμαλές. Account for the case of ἐξόν and νυκτός. What verb is derived from αἴσθησις ? Give its parts. How much is a mina (μνᾶ) ?

FIRST YEAR ENTRANCE.

LATIN.

THURSDAY, SEPT. 15TH:—AFTERNOON, 2 TO 5.

Examiner, ... A. JUDSON EATON, PH.D.

(A) LATIN GRAMMAR.

1. Define the terms *inflection*, *stem*, *root*, and give the characteristic or final vowel of each of the four declensions.

2. Decline *Aeneas*, *vir*, *genu*, *pater*, *senex*. Give the Gen. Sing. of *iter*, *unus*, *Vergilius:* the Abl. Sing. and Pl. of *mare*, *dies*, *deus*, *domus*. Decline *idem* in the singular.

3. Give the Rules of Gender for nouns of the Second Declension, and state the chief exceptions.

4. Decline *melior* in the Singular. Compare *audax*, *facilis*, *parvus*, *digne*.

5. Write down the first person of the imperfect, future, and future perfect, indicative, of *possum*, *audio*, *eo*, *volo*, *rego;* and the present and pluperfect subjunctive of *fero*, *prosum*, *curro*, *quaero*.
Give the imperative, in all its forms, of *nolo*.

6. How is Measure of Space expressed? Illustrate by examples. Distinguish between the Subjective and Objective Genitive.

7. What case do the following verbs govern: *memini*, *potior*, *studeo*, *persuadeo*, *egeo*, *interest*.

8. Translate and explain the construction of *italicized* forms:—
(*a*) dicit non *omnes bonos esse* beatos. (*b*) non est is qui timeat (*c*) edo *ut vivam*. (*d*) *primus* venit. (*e*) venerunt *ut pacem peterent*, (Express the purpose clause in as many ways as you can.) (*f*) desiderium *oti*. (*g*) cui *Africano* fuit cognomen. (*h*) *in summa turre* stabat.

9. Turn into Latin: (*a*) Eighteen hundred and ninety-two. (*b*) With the Germans, who lived very near, the Belgians were constantly waging war. (*c*) He was led on by ambition for royal power. (*d*) In view of their renown in war, their territories were too narrow. (*e*) By my resources and my army I will gain the government for you.

(B) CAESAR AND VIRGIL.

1. Translate:—
(*a*) His rebus fiebat, ut et minus late vagarentur et minus acile finitimis bellum inferre pos sent; qua de causa homines belland

cupidi magno dolore afficiebantur. (*b*) Die constituta causae dictionis Orgetorix ad iudicium omnem suam familiam, ad hominum milia decem, undique coegit, et omnes clientes obaeratosque suos, quorum magnum numerum habebat, eodem conduxit; per eos, ne causam diceret, se eripuit. (*c*) Caesari cum id nuntiatum esset, eos per provinciam nostram iter facere conari, maturat ab urbe proficisci, et quam maximis potest itineribus in Galliam ulteriorem contendit et ad Genavam pervenit.

(*d*) Legatos ad eum mittunt qui *dicerent*, "*Sibi* esse in animo, sine ullo maleficio iter per Provinciam facere, propterea quod aliud iter haberent nullum: rogare, ut eius voluntate id *sibi* facere *liceat*." Caesar quod memoria tenebat, Lucium Cassium Consulem *occisum*, exercitumque eius ab Helvetiis pulsum et sub iugum missum, *concedendum* non putabat: neque homines *inimico animo*, *data facultate* per Provinciam *itineris faciundi* temperaturos ab iniuria et maleficio existimabat. Tamen, ut spatium intercedere posset, dum milites, quos imperaverat *convenirent*, legatis respondit, "diem se ad deliberandum sumpturum; si quid vellent, ante diem idus Apriles reverterentur."

(*e*) Caesar loquendi finem fecit, seque ad suos recepit: suisque imperavit, ne quod omnino telum in hostes reiicerent. Nam, etsi sine ullo periculo legionis delectae cum equitatu proelium fore videbat, tamen committendum non putabat, ut, pulsis hostibus, dici posset, eos ab se per fidem in colloquio circumventos. Posteaquam in vulgus militum elatum est, *qua arrogantia* in colloquio Ariovistus usus *omni Gallia Romanis* interdixisset, impetumque in nostros eius equites fecisse, eaque res colloquium ut diremisset; multo maior alacritas studiumque pugnandi maius *exercitu* iniectum est.

CAESAR, BK. I.

2. (*a*) Why is *vagarentur* (l. *a*) in the *subjunctive* mood and *imperfect* tense? Account for the *case* and *gender* of *die* (l. *b*). (*b*) Give the principal parts of *proficisci*, *contendit*, *coëgit*.

(*c*) Show carefully the construction of the words printed in Italics in extracts (*d*) and (*e*).

(*d*) What is meant by *Oratio Recta* and *Oratio Obliqua?* Illustrate your answer from the above extracts.

3. Translate *one* of the following extracts, and answer the questions under it:—

I. Talia voce refert, *curisque* ingentibus aeger
spem voltu simulat, premit altum corde dolorem.
Illi se *praedae* accingunt dapibusque futuris.
Tergora deripiunt *costis* et viscera nudant;
pars in frusta secant veribusque trementia figunt;

litore aena locant alii, flammasque ministrant.
Tum victu revocant viris, *fusique* per herbam,
Inplentur *veteris Bacchi* pinguisque ferinae.
Postquam exempta fames epulis mensaeque remotae,
amissos longo socios sermone requirunt.
Spemque metumque inter dubii, seu vivere credant,
sive *extrema* pati nec iam exaudire vocatos.
Praecipue pius Aeneas nunc acres Oronti,
nunc Amyci casum gemit et crudelia secum
fata Lyci, fortemque Gyan, fortemque Cloanthum.

VIRGIL, BK. I.

(*a*) Explain the grammatical construction of italicized words. (*b*) Give the principal parts of *premit*, *accingunt*, *figunt*, *pati*. (*c*) Write out the first two lines, divide into feet, marking the principal caesura. (*d*) Translate and explain the following passages: (1) dives opum. (2) spretae iniuria formae. (3) parce metu. (4) nuda genu. (5) incute vim ventis.

II. At media socios incedens nave per ipsos
hortatur Mnestheus: "Nunc, nunc insurgite remis,
Hectorei socii, Troiae quos sorte suprema
delegi comites; nunc illas promite vires,
nunc animos, quibus in Gaetulis Syrtibus usi,
Ionioque mari, Maleaeque sequacibus undis.
Non iam prima peto Mnestheus, neque vincere certo;
quamquam o! sed superent, quibus hoc, Neptune, dedisti;
extremos pudeat rediisse: hoc vincite, cives,
et prohibete nefas." Olli certamine summo
procumbunt: vastis tremit ictibus aerea puppis,
subtrahiturque solum; tum creber anhelitus artus
aridaque ora quatit; sudor fluit undique rivis.
Attulit ipse viris optatum casus honorem.
Namque furens animi, dum proram ad saxa suburget
interior, spatioque subit Sergestus iniquo:
infelix saxis in procurrentibus haesit.

VIRGIL, BK. V.

(*a*) Explain the following epithets:—*Hectorei* socii, *Gaetulis* Syrtibus, *Cerealia* arma, *cana* Fides, *Mavortia* moenia. (*b*) Derive *promite*, and give its principal parts. (*c*) Account for the grammatical construction of *vincere*, *superent*, *olli*, *rivis*, *animi*. (*d*) Scan the last three lines, remarking on any peculiarities of metre.

III. Eodem tempore equites nostri levisque *armaturae* pedites, qui cum iis *una* fuerant, quos primo hostium impetu *pulsos* dixeram, cum se in castra *reciperent*, adversis hostibus occurrebant ac rursus aliam in partem fugam

petebant; et calones, qui ab decumana porta ac summo, iugo collis nostros victores flumen transire conspexerant *praedandi* causa egressi, cum respexissent et hostes in nostris castris versari vidissent, praecipites fugae sese mandabant. Simul eorum qui cum impedimentis veniebant clamor fremitusque oriebatur, aliique aliam in partem perterriti ferebantur. Quibus omnibus rebus permoti equites Treviri, quorum inter Gallos virtutis opinio est singularis, qui auxilii causa ab civitate ad Caesarem missi venerant, cum multitudine hostium castra nostra compleri, nostras legiones premi et paene circumventas teneri, calones, equites, funditores, Numidas, diversos dissipatosque in omnes partes fugere *vidissent*, *desperatis nostris rebus domum* contenderunt: Romanos pulsos superatosque, castris impedimentisque eorum hostes potitos civitati renuntiaverunt.

CAESAR, BK. II.

(*a*) Explain grammatically italicized words. (*b*) What is the Nom. Sing. of *praecipites?* Give its derivation. (*c*) Explain the circumstances of the struggle alluded to in this extract.

IV. Armis obsidibusque acceptis Crassus in fines Vocatium et Tarusatium profectus est. Tum vero barbari commoti, quod oppidum et *natura* loci et manu munitum *paucis diebus* quibus eo ventum erat expugnatum cognoverant, legatos quoquoversum dimittere, coniurare, obsides inter se dare, copias *parare* coeperunt. Mittuntur etiam ad eas civitates legati, quae sunt citerioris Hispaniae finitimae Aquitaniae: inde auxilia ducesque arcessuntur. Quorum adventu magna cum auctoritate et magna cum hominum multitudine bellum gerere conantur. Duces vero ii deliguntur qui una cum Q. Sertorio *omnes annos* fuerant summamque scientiam rei militaris habere existimabantur. Ili consuetudine populi Romani loca capere, castra munire *commeatibus* nostros intercludere instituunt. Quod ubi Crassus animadvertit suas copias propter exiguitatem non facile diduci, hostem et vagari et vias obsidere et castris satis praesidii relinquere, ob eam causam minus commode frumentum commeatumque sibi supportari, in dies hostium numerum augeri, non *cunctandum* existimavit *quin* pugna *decertaret*. Hac re ad consilium delata, ubi omnes idem sentire intellexit, posterum diem pugnae constituit.

CAESAR, BK. III.

(*a*) Give the principal parts of *profectus est*, *cognoverant*, *arcessuntur*, *deliguntur*, *augeri*. (*b*) Give the rule of syntax for the construction after *quod* (*causal*), *qui* and *ubi*. (*c*) Give the construction of italicized words

SUPPLEMENTAL EXAMINATION.

ROMAN HISTORY AND LITERATURE.

FIRST YEAR.

Examiners,..... { A. J. EATON, PH.D.
JOHN L. DAY, B.A.

(A.)

I. The geography, climate, and products of ancient Italy.

II. Outline the history of Rome during the Regal Period.

III. How did law of debt operate on the political condition of Rome? Name the more important of the laws passed to ameliorate the Plebs Dates.

IV. Notes on: *ager publicus; Spurius Cassius; potestas; lex Cannuleia; tictor; dictator; comitia curiata.*

V. An account of the war with Pyrrhus, giving causes, events with dates, and results.

VI. Write briefly on (*a*) the Roman religion, *or* (*β*) the Decemvirate.

VII. By what steps did Rome acquire the supremacy in Italy? (Brief statements of wars with dates.)

VIII. The Etruscans: their character, and the part they played in Roman History.

(B.)

IX. Write notes *on any four* of the following topics:

(*a*) Similes of the tenth book of the Aeneid.

(*b*) The Subject and Purpose of the Aeneid.

(*c*) Importance of oratory in the Ciceronian age.

(*d*) Lucretius. his chief work and literary importance.

(*e*) The Pantomime in the time of the Emperors: its general character.

FIRST YEAR ENTRANCE.

FACULTIES OF ARTS AND APPLIED SCIENCE.

ENGLISH GRAMMAR.

MONDAY, SEPT. 19TH:—MORNING, 9 TO 10.30.

Examiners, ... { CHAS. E. MOYSE, B.A.
W. J. MESSENGER, B.A.

(N.B—Question 7 must be attempted by every candidate for entrance into the First Year.)

1. Name and distinguish the plurals of six nouns which have two forms of the plural with different meanings, and give the plurals of the following nouns: scarf, handful, court-martial, cherub, bandit, beef, talisman, genus, monarch.

2. Into what classes are pronouns divided?

3. What is inflection? Name the parts of speech which are inflected; state the purpose of each inflection; and give examples.

4. (*a*) Give the past tense (one person) and past participle of the lowing verbs:—go, forsake, wear, loose, mean, knit, lie, cost, dare, seethe, thrive, set.

(*b*) Conjugate the verb 'to choose' in the passive voice, giving only the third person singular.

5. Name four adjectives which do not admit of comparison: and compare the following: ill, frugal, fore, late, few, far, amiable, many.

6. Correct or justify the following, giving your reasons in each case:

(*a*) The introduction of such beverages as tea and coffee have not been without their effect.

(*b*) 'It is in this particular that the great difference lies between the labourer who moves to Yorkshire, and he who moves to Canada.'

(*c*) 'The old and new opinions had their active partisans within the walls of the college.'

(*d*) 'He was angry at me asking him the question.'

7. Analyse and parse:

'See, here is a bower
Of eglantine, with honeysuckle woven,
Where not a spark of prying light creeps in.'

8. Parse the words in italics in the following sentences:—

We returned *another way*. *What trade* art thou?
He made me *laugh*. He was elected *consul*.
Thou *shalt* not *steal*. You *may go*.

SECOND YEAR.

(Candidates will answer questions 1, 2, 4, 5 and 8 of the First Year paper and also the following. Question 10 must be attempted by all.)

9. Explain the words in italics with reference to older English: a hundred *horse; rather;* I must *needs* go; *Wednesday;* woe *worth* the day; *Methinks* the lady doth protest too much.

10. Analyse:

"High above all a cloth of state was spread
And a rich throne, as bright as sunny day,

On which there sat most brave, embellished,
With royal robes and gorgeous array,
A maiden queen, that shone, as Titan's ray,
In glittering gold and peerless precious stones."

11. (*a*) Illustrate four uses of the word 'that,' and explain its form by reference to older English.

(*b*) Point out the difference in meaning in the following pairs of sentences :—

(1) He was the first that came. He was the first who came.
(2) He would make a better statesman than lawyer.
He would make a better statesman than a lawyer.

ENTRANCE EXAMINATIONS.

ENGLISH HISTORY AND ESSAY.

MONDAY, SEPT. 19TH :—10.30 TO 12.30.

Examiners,..... { CHAS E. MOYSE. B.A.
P. T. LAFLEUR, M.A.

First Year.

1. Give important particulars concerning the Long Parliament, the Constitutions of Clarendon, the Exclusion Bill, the Triple Alliance (1688).

2. Give an account of the reign of Henry III.

3. Sketch the life of Mary, Queen of Scots.

4. Mention in their proper order (*a*) six statesmen in all who lived in the Tudor and Hanoverian periods (excluding the reign of Victoria), and state the views of each regarding some important political question; (*b*) six battles fought in the Tudor period. Give the names of the parties engaged, and the result in each case.

Second Year.

[Answer questions 1 and 2 of the First Year set and also the following.]

5. Give a sketch of England's chief dealings with Ireland since the time of Henry II and before the beginning of the present century.

6. Describe prominent features of the struggle between Church and State, in the course of English history.

ESSAY.

[Write the Essay on a separate set of papers and affix your name to it.]

First Year.

Write not less than a page on *one* of the following subjects:—

(*a*) Epidemics.

(*b*) An Ocean Voyage.

(*c*) The Discovery of the New World.

Second Year.

Write not less than a page on *one* of the following subjects:—

(*a*) Labour Strikes.

(*b*) The art of Photography.

(*c*) A National Hero (*or* Heroine).

FIRST YEAR ENTRANCE.

MATHEMATICS.

FRIDAY, SEPTEMBER 16TH:—MORNING, 9 TO 12.

ARITHMETIC.

1. If the printing of a book of 500 pages, each page containing 30 lines 4 inches long, cost $200; what should be the cost of a book of 400 pages, each page consisting of 35 lines $3\frac{3}{4}$ inches long?

2. In what time will the simple interest on $250 be the same as the compound interest on $200 for 5 years, the rate being 6 per cent. in each case?

3. Assuming the paper on which you are writing to be $8\frac{1}{4}$ by $13\frac{1}{4}$ inches, express the area in square centimetres. Also find in centimetres one side of a square of the same area.

ALGEBRA.

4. Find the square root of

$$16x^6 + 16x^7 - 4x^8 - 4x^9 + x^{10}.$$

5. Resolve into elementary factors:

(*a*) $x^2 - 23xy + 132y^2$,

(*b*) $12x^2 - 31x - 15$,

(*c*) $2x^4 - x^3 + 4x - 2$.

6. Simplify $\left(\frac{2}{x} - \frac{1}{a+x} + \frac{1}{a-x}\right) \div \left(\frac{a+x}{a-x} - \frac{a-x}{a+x}\right)$.

7. Simplify $4\sqrt{63} + 5\sqrt{7} - 8\sqrt{28}$, and rationalize the denominator of $\frac{\sqrt{7}+\sqrt{2}}{9+2\sqrt{14}}$

8. Solve

(*a*) $\frac{x+3}{2x-7} - \frac{2x-1}{x-3} = 0$,

(*b*) $\begin{cases} \frac{1}{7}x + \frac{1}{5}y = 1\frac{3}{7}, \\ x + \frac{1}{3}y = 4\frac{2}{3}. \end{cases}$

GEOMETRY.

9. The straight lines which join the extremities of two equal and parallel straight lines towards the same parts are themselves equal and parallel.

10. The square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the other two sides.

a. Describe a square which shall be equal to the sum of two given squares.

11. If a straight line be divided into any two parts, the squares on the whole line and on one of the parts shall be equal to twice the rectangle contained by the whole and that part together with the square on the other part.

12. The diameter is the greatest chord in a circle; and of others, that which is nearer to the centre is greater than one more remote.

a. Through a given point within a circle, draw the shortest possible chord.

N.B. It is necessary to pass in each subject. All the work must be shown; answers alone will not be accepted.

FIRST YEAR ENTRANCE.

FRIDAY, SEPT. 16TH :—MORNING, 9 TO 12.

1. Multiply $2\frac{3}{4}$ by 3 and divide the product by the difference between $\frac{7}{8}$ and $\frac{8}{9}$

2. Divide \$218.63 into two parts which shall be to one another in the ratio of 4 : 3.

3. Find the interest on $2143.65 for 5 months at $6\frac{1}{2}$ per cent.

4. Extract the square root of 5.4776.

5. Find a fourth proportional to $3\frac{1}{4}$; $4\frac{1}{2}$ and .0032.

6. Find the least common multiple of 4, 5, 6, 8, 9.

7. Solve the equations :—

$$(a) \quad x + \frac{1}{x} = \frac{5}{2}$$

$$(b) \quad \frac{2}{x} + \frac{5}{y} = 7 : \quad \frac{3}{x} - \frac{2}{z} = 11$$

$$(c) \quad (a+b)\,x + (b-a)\,x = b^2$$

$$(d) \quad x + 7 = 4x + 4$$

$$(e) \quad \frac{x}{2} + 2 = \frac{x}{4} + \frac{5}{2}$$

8. Find the highest common factor of

$$2x^2 - 5x + 2 \text{ and } 4x^3 + 12x^2 - x - 3$$

9. Reduce to their lowest common denominator

$$\frac{2}{3x} \quad \frac{4}{5x} \quad \frac{7}{30x}$$

10. Simplify $\frac{x}{x-a} + \frac{a}{a-x}$.

11. Find the value of $\sqrt{\frac{s(s-a)}{(s-b)(s-c)}}$ when

$$a = 9,\ b = 12,\ c = 15,$$

12. Resolve $4x^2 + 4x + 1$ into factors.

FIRST YEAR ENTRANCE.

FRENCH.

Examiners,..... .... { P. J. Darey, M.A., LL.D. / Rev. J. L. Morin, M.A.

1. Translate :

Christophe Colomb passa près de quarante ans de sa vie à visiter les parties connues du globe ; toujours plus convaincu de l'existence d'un continent, il alla à Lisbonne, car les Portugais étaient alors le peuple le plus avancé en navigation et en connaissances géographiques.

Un parent de sa femme, établi à Lisbonne, lui apprit qu'il avait trouvé sur le rivage des pièces de bois qui avaient l'air de venir de loin, et des plantes d'une espèce tout à fait inconnue.

2. Write the following words in the plural and state the rule for each :

Le grand canal. Le régal royal. La belle voix. Le prix précieux. L'éventail de ma sœur. Du livre et de la plume de cet homme, clou, bijou nez, cheveu, bleu.

3 (*a*) Give the possessive adjectives in both genders and numbers, (*b*) When is *mon, ton, son*, used instead of *ma, ta, sa ?* (*c*) With what does the possessive adjective agree in French ?

4. Distinguish between :—(1) *ses, ces :* (2) votre, vôtre, (3) ce, se. (4) cet, cette. (5) là, la. (6) où, ou.

5. Translate.

(1) The King whose power is absolute. (2) Will you have my carriage or my cousin's ? (3) I have a good pen, and I will give it to my sister. (4) The rose is more beautiful than the violet. (5) Somebody has taken my book. (6) Do you speak French (7) We commence to speak it. (8). We grind our coffee ourselves. (9) We took a walk yesterday in the garden with my father and mother. (10) Let us sit down.

6. Conjugate in the present indicative, the past definite, the futur and present subj, *se promener, parler, falloir, venir, dire, faire, être, avoir naître, partir.*

FIRST YEAR EXHIBITIONS.

GREEK.

THURSDAY, SEPT. 15TH :—MORNING, 9 TO 12.

Examiners,..... { A. JUDSON EATON, PH.D.
JOHN L. DAY, B.A.

NOTE.—Candidates have the option of answering 6 and 7, or 8 and 9.

1. Translate :—

(*a*) Ἄνδρες, ἐάν μοι πεισθῆτε, οὔτε κινδυνεύσαντες οὔτε πονήσαντες τῶν ἄλλων πλέον προτιμήσεσθε στρατιωτῶν ὑπὸ Κυρον. τι οὖν κελεύω ποιῆσαι ; νῦν δεῖται Κῦρος ἑπεσθαι τοὺς Ἕλληνας ἐπὶ βασιλέα· ἐγὼ οὖν φημι ὑμὰς χρῆναι διαβῆναι τὸν Εὐφράτην ποταμὸν πρὶν δῆλον ὅ τι οἱ ἄλλοι Ἕλληνες ἀποκρινοῦνται Κύρῳ. Ἢν μὲν γὰρ ψηφίσωνται ἑπεσθαι, ὑμεῖς δόξετε αἴτιο εἶναι ἀρξαντε, τοῦ διαβαίνειν, καὶ ὡς προθυμοτάτοις οὖσιν ὑμῖν χάριν ἕξεται

Κῦρος καὶ ἀποδώσει· ἐπίσταται δ' εἴ τις καὶ ἄλλος· ἢν δ' ἀποψηφίσωνται οἱ ἄλλοι, ἅπιμεν ἂν ἅπαντες εἰς τοὐμπαλιν, ὑμῖν δὲ ὡς μόνοις πειθομένοις πιστοτάτοις χρήσεται καί εἰς φρούρια καὶ εἰς λοχαγίας, καὶ ἄλλου οὑτινος ἂν δέησθε οἶδα ὅτι ὡς φίλου τεύξεσθε Κύρου.

(β) Ἀπολελοίπασιν ἡμᾶς Ξενίας καὶ Πασίων. ἀλλ' ἴυγε μέντοι ἐπιστάσθωσαν οὐτε ἀποδεδράκασιν· οἰδα γὰρ ὅπη οἴχονται. οὔτε ἀποπεφευγασιν. ἔχω γαρ τριήρεις, ὥστε ἑλεῖν τὸ ἐκείνων πλοῖον· ἀλλὰ μα τοὺς θεοὺς οὐκ ἐγωγε αὐτοὺς διώξω, οὐδ' ἐρεῖ οὐδείς, ὡς ἐγώ, ἐως μὲν ἂν παρῇ τις, χρῶμαι, ἐπειδὰν δὲ ἀπιέναι βουληται, συλλαβὼν καὶ αὐτοὺς κακῶς ποιῶ καὶ τὰ χρήματα ἀποσυλῶ. Ἀλλὰ ἴτωσαν ἐιδότες, ὅτι κακίους εἶσι περὶ ἡμᾶς ἢ ἡμεῖς περὶ ἐκείνους.

(γ) Καὶ ἤδη τε ἦν μέσον ἡμέρας καὶ οὔπω καταφανεῖς ἦσαν οἱ πολέμιοι. ἡνίκα δέ δείλη ἐγίνετο, ἐφάνη κονιορτὸς ὥστερ νεφέλη λευκή, χρόνῳ δὲ συχνῷ ὕστερον ὥσπερ μελανία τις ἐν τῷ πεδίῳ ἐπὶ πολύ.

2. (1) In Ext. (*a*) explain the construction of τοῦ διαβαίνειν. What was the constitution of a λοχαγία? τευξεσθε κύρου—why genitive? (2) In Ext. (*β*) distinguish the three verbs ἀπολελοίπασιν, ἀποδεδράκασιν, ἀποπεφεύγασιν. Derive τριήρης. (3) In Ext. (γ) explain the case of ἡμέρας and χρόνῳ. How did the Greeks divide the day?

3. Translate :—

"Φίλε κασίγνητε, θάνατόν νύ τοι ὅρκ' ἐταμνον,
Οἷον προστήσας πρὸ Ἀχαιῶν Τρωσὶ μάχεσθαι·
Ὥς σ' ἔβαλον Τρῶες, κατὰ δ' ὅρκια πιστὰ πατησαν.
Οὐ μέν πως ἀλιων πέλει ὅρκιον αἱμά τε ἀρνῶν
Σπονδαὶ τ' ἄκρητοι καὶ δεξιαὶ, ἦ ἐπέπιθμεν.
Εἰ περ γὰρ τε καὶ αὐτίκ' Ὀλύμπιος οὐκ ἐτέλεσσεν,
Εκ τε καὶ ὀψὲ τελεῖ, σύν τε μεγαλῳ ἀπέτισαν,
Σὺκ σφῆσιν κεφαλῆσι γυναιξί τε καὶ τεκέεσσιν.
Εὖ γὰρ ἐγὼ τόδε οἶδα κατὰ φρένα καὶ κατὰ θυμόν·
Ἔσσεται ἦμαρ ὅτ' ἂν ποτ' ὀλώλῃ Ἴλιος ἰρὴ
Καὶ Πριαμος καὶ λαος ἐϋμελίω Πριάμοιο,
Ζεὺς ἑ σφι Κρονίδης ὑψὶζυγος, αἰθέρι ναίων,
Αὐτὸς ἐπισσείησιν ἐρεμνὴν αἰγίδα πᾶσιν
Τῆσδ' ἀπάτης κοτέων· τά μὲν ἔσσεται οὐκ ἀτέλεστα·

HOMER, Iliad IV.

4. (1) How is *hiatus* avoided in Homer? Scan the first two and last two lines, remarking peculiarities. (2) Derive κασίγνητε, σπονδαί, ἐϋμμελίω. (3) Decline ἦμαρ. Account for the mood of μάχεσθαι and of ὀλώλῃ. (5) What is *tmesis*? (6) Make a note on Ὀλύμπιος, Ἴλιος, κρονίδης. (7) What is the title of this fourth book?

5. (*a*) Give etymology of πότνια, γέρας, ἀβλῆτα, δαῖφρονα, ἱππηλάτα

νήπος. (*β*) Mood and tense (with principal parts) of κέκλετ', βάν, πάγε ὀλώλη, ἐλωσι, ἐπέμυξαν, θεῖναι.

6. Translate :—

Τίνος οὖν ἕνεκα ταῦτα λέγω; ἵν' εἰδῆτε, ὦ ἄνδρες Ἀθυναῖοι, καὶ θεάσησθε, ὅτε οὐτε φυλαττομένοις ὑμιν ἐστὶ φοβερόν, ουτ' ιν ὀλιγωρῆτε. τοιούτον, οἷον ἂν ὑμεῖς βούλησθε, παραδείγμασι χρώμενοι τῇ τότε ῥώμῃ τῶν Λακεδαιμονίων, ἧς ἐκρατεῖτε ἐκ τοῦ προσέχειν τοῖς πράγμασι τὸν νοῦν, καὶ τῇ νῦν ὕβρει τούτου, δι' ἣν ταραττόμεθα ἐκ τοὺ μηδὲν φροντίζειν ὧν ἐχρῆν· εἰ δέ τις ὑμῶν, ὦ ἄνδρες Ἀθηναῖοι, δυσπολέμητον οἴεται τὸν Φίλιππον εἶναι, σκοπῶν τό τε πλῆθος τῆς ὑπαρχούσης αὐτῷ δυνάμεως, καὶ τὰ χωρία πάντα ἀπολωλέναι τῇ πόλει, ὀρθῶς μὲν οἴεται· λογισάσθω μέντοι τοῦθ', ὅτι εἴχομέν ποτε ἡμεῖς, ὦ ἄνδρες Ἀθηναῖοι, Πύδναν καὶ Ποτίδαιαν καῖ Μεθώνην καὶ πάντα τὸν τόπον τοῦτον οἰκεῖον κύκλῳ, καὶ πολλα τῶν μετ' ἐκείνου νῦν ὄντων ἐθνῶν, αὐτονομούμενα καὶ ἐλεύθερα ὑπῆρχε· καὶ μᾶλλον ἐβούλετ' ἔχειν οἰκείως, ἢ κείνῳ. εἰ τοίνυν ὁ Φίλιππος τότε ταύτην ἔσχε τὴν γνώμην, ὡς χαλεπὸν πολεμεῖν ἐστὶν Ἀθηναίοις, ἔχουσι τοσαῦτα ἐπιτειχίσματα τῆς αὐτοῦ χώρας, ἐρημον ὄντα συμμάχων, οὐδὲν ἂν, ὧν νυνὶ πεποιηνεν, ἔπραξεν, οὐδὲ τοσαύτην ἐκτήσατο δύναμιν.

Dem., Phil. I.

7. (1) What circumstances led to the delivery of the Philippics? Give dates of these orations. (2) Locate the places mentioned in the Ext. (C). (3) Account for the mood of ὀλιγωρῆτε, and of βούλησθε, (4) Explain the following:—τοὺς ἐτησίας: τὴν τῶν Διονυσίων ἑορτὴν χορηγός; τας επιστολιμαίους δυνάμεις.

8. (*γ*) Ὣς φάτο, Ποντόνοος δὲ μελίφρονα οἶνον ἐκίρνα,
νώμησεν δ' ἀρα πᾶσιν ἐπαρξάμενος δεπάεσσιν.
αὐτὰρ ἐπεὶ σπεῖσάν τ' ἐπιόν θ' ὅσον ἤθελε θυμὸς,
τοῖσιν δ' Ἀλκίνοος ἀγορήσατο καὶ μετέειπεν
„ Κέκλυτε, Φαιήκων ἡγήτορες ἠδὲ μέδοντες,
ὄφρ εἶπω τά με θυμὸς ἐνὶ στήθεσσι κελεύει.
νῦν μὲν δαισάμενοι κατακείετε οἰκαδ' ἰόντες·
ἠῶθεν δὲ γέροντας ἐπὶ πλέονας καλέσαντες
ξεῖνον ἐνὶ μεγάροις ξεινίσσομεν ἠδὲ θεοῖσιν
ῥέξομεν ἱερὰ καλὰ, ἔπειτα δὲ καὶ περὶ πομπῆς
μνησόμεθ', ὥς χ' ὁ ξεῖνος ἀνευθε πόνου καὶ ἀν ης
πομπῇ ὑφ' ἡμετέρῃ ἣν πατρίδα γαῖαν ἵκηται
χαίρων παρπαλίμως, εἰ καὶ μάλα τηλόθεν ἐστὶν,
μηδέ τι μεσσηγύς γε κακὸν καὶ πῆμα πάθῃσιν
πρίν γε τὸ ἧς γαίης ἐπιβήμεναι· ἔνθα δ' ἔπειτα
πείσεται ἅσσα οἱ Αἶσα κατὰ Κλῶθές τε βαρεῖαι
γεινομένῳ νήσαντο λίνῳ, ὅτε μιν τέκε μήτηρ.

Homer, Odyssey, VII.

9. (1) What evidences are there for the previous existence of the digamma? In what dialect did Homer write? Mention the more important differences between it and the Greek of Athens (about 450 B.C.). (2) Give the Attic for words not Attic in the first ten lines of Ext. D. (3) Notice any uses of the infinitive mood peculiar to Homer. (4) Distinguish ὥστε with infinitive, and ὥστε with the indicative. (5) At what date are the Homeric poems supposed to have been composed?

10. Translate at sight :—

Ἐπὶ τούτοις Ξενοφῶν τάδε εἶπε· Κλέαρχος μὲν τοίνυν εἰ παρὰ τοὺς ὅρκους ἔλυε τὰς σπονδας, τὴν δίκην ἔχει. δίκαιον γάο ἀπάλλυσθαι τοὺς ἐπιορκοῦντας· Πρόξενος δὲ καὶ Μένων ἐπείπερ εἰσὶν ὑμετεροι μὴν εὐεργέται, ἡμέτεροι δέ στρατηγοί πέμψατε αὐτοὺς δεῦρο· δῆλον γὰρ ὅτι φίλοι γε ὄντες ἀμφοτέρους πειράσονται καὶ ὑμῖν καὶ ἡμῖν τὰ βέλτιστα ξυμβουλεύειν, Πρὸς ταῦτα οἱ βάρβαροι πολὺν χρόνον διαλεχθέντες ἀλλήλοις ἀπῆλθον οὐδὲν ἀποκρινάμενοι.

LATIN.

THURSDAY, SEPT. 15th :—AFTERNOON, 2 TO 5.

Examiner, ...A. JUDSON EATON, PH.D.

1. Translate, Caesar, B. G. (*a*) Bk. I., chap. 46 ; (*b*) Bk. II., chap. 9.

2. (*a*) *Committendum non ut dici posset* (ch. 46)—explain this construction. (*b*) Give the rules for the case of *adrogantia*, *omni Gallia*, *Romanis* and *multo*. (*c*) *ut diremisset* : what use of the subjunctive? (*d*) In chap 9 of Bk. II, carefully explain the mood and tense of *transirent*, *fieret adgrederentur*, *potuissent* and *popularentur*.

3. Translate, Virgil, Aeneid, Bk. I., vss. 418—436.

4. (*a*) Derive *semita*, *ascendo*, *excidunt*, *agmen*, *surgunt*, *percutio*, *aliger capessere*, *cunctus*. (*b*) Remark on the following construction : *strata viarum*, *pars ducere muros*, *scaenis futuris*, *alta theatri fundamenta*. *cernitur ulli* (v. 440), *laetissimus umbrae* (v. 441), *multa gemens* (v. 465)

5. Translate, Cicero, In Catilinam, I. and II. :

(*a*) Fuisti igitur apud Laecam illa nocte, Catilina : distribuisti partes Italiae · statuisti quo quemque proficisci placeret : delegisti quos Romae *relinqueres*, quos tecum educeres : descripsisti urbis partes ad incendia : confirmasti te ipsum iam *esse exiturum* : dixisti paullulum tibi esse etiam tum *morae*, quod ego *viverem*. Reperti sunt duo equites Romani, qui te ista

cura *liberarent*, et sese illa ipsa nocte, paullo ante lucem, me meo in lectulo interfecturos pollicerentur. Haec ego omnia, vix dum etiam coetu vestro dimisso, comperi: domum meam maioribus praesidiis munivi atque firmavi, exclusi eos, quos tu mane ad me *salutatum* miseras, cum illi ipsi *venissent*; quos ego iam multis ac summis viris ad me id temporis venturos esse praedixeram.

(*b*) Quae cum ita sint, Quirites, vos, quemadmodum iam antea, vestra tecta custodiis vigiliisque defendite: *mihi*, ut *urbi* sine vestro motu ac sine ullo tumultu, satis esset praesidii, consultum ac provisum est. Coloni omnes municipesque vestri, certiores a me facti de hac nocturna excursione Catilinae, facile urbes suas finesque defendent: gladiatores, quam sibi ille maximam manum et certissimam fore putavit, quamquam *meliore animo* sunt quam pars patriciorum potestate tamen nostra continebuntur. Q. Metellus, quem ego prospiciens hoc in agrum Gallicanum Picenumque praemisi, aut opprimet hominem, aut omnes eius motus conatus que prohibebit.

6. (*a*) Explain the meaning of (1) *tabulas novas*, (2) *refer ad senatum*, (3) *in ludo gladiatorio*, (4) *custodiis vigiliisque*, (5) *pridie Kalendas Januarias*. (*b*) Where and when were the Orations against Catiline delivered? State the circumstances which called forth the first Oration. (*c*) Write a brief note on the following: *Palatium*, *Pontifex Maximus*, *Praeneste* (What is its modern name? Where situated?), *colonia*, *Juppiter Stator infitiatores*. (*d*) Accurately explain the Syntax of the words in italics in the above extracts.

7. Translate (*at sight*):

Vercingetorix, ubi de Caesaris adventu cognovit, oppugnatione destitit atque obviam Caesari proficiscitur. Ille oppidum Biturigum positum in via Noviodunum oppugnare instituerat. Quo ex oppido cum legati ad eum venissent oratum ut sibi ignosceret suaeque vitae consuleret, ut celeritate reliquas res conficeret qua pleraque, erat consecutus arma proferri, equos produci, obsides dari iubet. Parte iam obsidum tradita, cum reliqua administrarentur, centurionibus et paucis militibus intromissis qui arma iumentaque conquirerent, equitatus hostium procul visus es qui agmen Vercingetorigis antecesserat. Quem simul atqua oppidani conspexerunt atque in spem auxilii venerunt, clamore sublato arma capere, portas claudere, murum complere coeperunt. Centuriones in oppido cum ex significatione Gallorum novi aliquid ab his iniri consilii intellexissent, gladiis destrictis portas occupaverunt suosque omnes incolumes receperunt.

Caesar ex castris equitatum educi iubet proeliumque equestre committit; laborantibus iam suis Germanos equites circiter cccc submittit, quos ab initio secum habere instituerat. Eorum impetum Galli sustinere non potuerunt, atque in fugam coniecti multis amissis se ad agmen receperunt:

quibus profligatis rursus oppidani perterriti comprehensos eos, quorum opera plebem concitatam existimabant, ad Caesarem perduxerunt seseque ei dediderunt. Quibus rebus confectis Caesar ad oppidum Avaricum, quod erat maximum munitissimumque in finibus Biturigum atque agri fertilissima regione, profectus est; quod eo oppido recepto civitatem Biturigum se in potestatem redacturum confidebat.

8. Write brief notes on the following topics: (1) The Roman Legion. (2) The *Agger*. (3) Life of Virgil. (4) The Metre of the Aeneid. (5) Roman Colonies.

GRAMMAR AND COMPOSITION.

TUESDAY, SEPT. 20TH :—AFTERNOON, 2 TO 5.

Examiner, ... A. J. EATON, M.A., PH.D.

(Carefully mark the accent in all Greek forms, and vowel quantity in Latin words.)

1. Define the terms *root*, *stem* and *termination*: Give the root and stem of any five of the following words: λογος, ἐλπίς, λύω, δείκνυμι, *stella*, *nomen princeps*.

2. What are the uncontracted forms of δηλῶτε, ἐτίμα, χρυσοῖ, οὐκ, *cogo debeo*, *rursus*, *amarat*, *surgo*, *cunctus*.

3. Decline *genus* and γένος, and explain the variation of form in the oblique cases. Decline *Anchises*, *deus*, *senex*, *Dido*, *iens* (in the singular); νοῦς (in the plural,) γυνή.

4. Give some instances of the Locative case in Latin and Greek? To what class of words does it mainly belong?

5. Separate into syllables according to the Latin and Greek mode of syllabication, *hospes*, *magnus*, *dixit*, *abest*; ἐγώ, νέκταρ, δεσμός, ἐλπίς.

6. Give English words cognate with the following forms: μήτηρ, ἔδος, σύς, ζυγόν, ἧπυς; *qui*, *genu*, *frater*, *vinum*.

7. State the rule for determining the Gender of nouns of the Second Declension, and give the chief exceptions to this rule.

8. Give the meaning, in the Singular and Plural, of *aedes*, *castrum*, *copia*, *hortus*, *pars*, *finis*.

9. Explain the following abbreviations in Latin: A., C., M., F.

10. What is a Deponent verb? When has the Latin perfect participle an active signification? How is the English perfect participle active supplied in other verbs?

11. Inflect *prosum* in the present indicative, and account for any peculiarity of form. Inflect *οἶδα* in the second pluperfect, giving both forms in each person.

12. Name the prepositions that are used with the Ablative in Latin, and those which govern the Genitive only in Greek.

13. Translate and remark on the difference between the English and Latin idioms: *pugna Cannensis; laeti audierunt; reliqui captivi; memoriae artem quam oblivionis malo; me ipse consolor; liber quem mihi dedisti; oppidum Antiochia; quid novi; nos omnes.*

14. Translate into Greek:

(1) He died at the very moment of conquest. (2) Immediately after the invasion of the Peloponnesians, Lesbos revolted from the Athenians. (3) There I saw Tantalus himself standing in a pool. (4) I will give the gold into your own hands. (5) He says one thing and thinks another. (6) They planted half the land and the other half they ploughed. (7) They said that they had been guilty of this breach of the law from goodwill to you. (8) When they had heard this they went away thinking that they were defeated. (9) If you were really wise you would admire the beauty of virtue. (10) It would have been well for you if this had happened.

15. Translate into Latin:

(1) He makes many promises, many threats, but I believe he will accomplish very little. (2) In his lifetime we neglected this poet, after his death we honour him with a state funeral. (3) I will send the most faithful slave I have with me. (4) In order to terrify the enemy he commanded the soldiers to strike their shields with their spears. (5) It is still uncertain whether our men have won the day or lost it; but whether they have won or lost it, I am certain that they have never been false to their allies or to their country. (6) The rest of Gaul was occupied by the Aquitani and the Celtae, who differed from each other in language, laws, and valour. (7) The suspicion was not wanting that he died by his own hand. (8 Accordingly he set out from the city, and in eight days reached that town and cut down the bridge.

16. Translate into Latin:

Many and not unknown are the crimes which Catiline has perpetrated. Baseness in private life is branded upon him and clings to his reputation. How many times has he lain in wait, weapon in hand, for the purpose of killing the consul? How many times has he tried to plant his dagger in the consul's body? Yet he can accomplish nothing, for either Cicero's watchfulness or the good fortune of the State thwarts his undertakings. How is it then? Seeing that all his fellow-citizens know that he is plotting the destruction of the commonwealth, is it possible for this light, this air of heaven, to delight him?

EUCLID.

FRIDAY, SEPTEMBER 16TH:—MORNING, 9 to 12.

Examiner, ... ALEXANDER JOHNSON, M.A., LL.D.

1. On a given straight line construct a rectangle equal to a given rectilineal figure.

2. The square on the hypotenuse of a right-angled triangle is equal to the sum of the squares described on the sides.

a. Given the base and the difference of the squares of the sides of any triangle, prove that the locus of the vertex will be a right line.

3. The square of the sum of any two right lines is equal to the sum of their squares together with twice the rectangle under them.

4. Cut a right line into two parts so that the rectangle under the whole and one of the parts shall be equal to the square of the other part.

5. On a given straight line construct a segment of a circle containing an angle equal to the angle of an equilateral triangle.

a. Given the base, vertical angle, and the perpendicular on the base of the triangle, construct it.

6. In a given circle inscribe a regular hexagon.

*7. Construct a rectilinear figure equal to a given one and similar to another.

*8. Find a fourth proportional to three given lines.

ALGEBRA—ARITHMETIC.

FRIDAY, SEPT. 16TH:—AFTERNOON, 2 TO 5.

Examiner, ... ALEXANDER JOHNSON, LL.D.

1. Find a formula for determining the sum of a series in Arithmetical Progression.

2. Find the sum of the series $1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8}$ + etc., *ad infinitum*.

3. Define a series in Harmonical Progression. The second term of an harmonical progression is 2 and the fourth term is 6 : find the series.

4. Solve the equations

$$(a)\ \sqrt{x+1} + \frac{1}{\sqrt{x+1}} = 2$$

$$(b)\ \frac{x+a}{x-b} + \frac{x+b}{x-a} = 2$$

(*c*) $\frac{7}{x-9} - \frac{11}{x-4} = \frac{7}{x+2} - \frac{11}{x+3}$

(*d*) $a = y + z, \quad b = z + x, \quad c = x + y.$

5. The product of the sum and difference of a number and its reciprocal is $3\frac{3}{4}$: find the number.

6. A steamer has a speed of 8 miles an hour in still water: it takes two hours and 40 minutes to make a trip of 8 miles against a current, and then 8 miles back with the current: find the velocity of the current.

7. Two rectangles contain the same area, viz., 480 sq. yards. The difference of their lengths is 10 yards, and of their breadths 4 yards: find their sides.

8. If snow to the depth of 4 feet cover one square mile: find its weight, supposing that 10 cubic inches of snow when melted produce one cubic inch of water, and that a cubic foot of water weighs $62\frac{1}{2}$ lbs.

9. Find the length of the diagonal of a square whose side is 1 mile long.

10. Reduce the circulating decimal $.3\dot{5}\dot{3}\dot{5}$ to a vulgar fraction.

11. Find a fourth proportional to $1\frac{1}{2}$, $\frac{7}{8}$, .001

12. Find the interest on £356.4.6 sterling for 5 months, at 6 per cent per annum.

ENGLISH LITERATURE.

SHAKSPERE, *Coriolanus*.

MONDAY, SEPTEMBER 19TH:—AFTERNOON, 2 TO 5.

Examiner,..... CHAS. E. MOYSE, B.A.

1. "The subject of Coriolanus is the ruin of a noble life through the sin of pride." Illustrate from the play.

2. Use the play to discover the chief traits of the character of Menenius and of Volumnia.

3. Give the substance of some important scene which you consider to be particularly impressive.

4. Scan the following lines:

(*a*) As you have been; that's for my country

(*b*) No impediment between but that you must

(*c*) For truth to overpeer. Rather than fool it so

(*d*) Thinking upon his services took from you

(*e*) As they us to our trenches followed

(*f*) *Auf.* Name not the God, thou boy of tears!

Coriol. Ha!

(*g*) *Lart.* My horse to yours, no!

Mar. 'Tis done!

Lart. Agreed.

(*h*) And power unto itself most commendable.

(*i*) It is the humane way: the other course

(*j*) The plebeians have got your fellow-tribune.

5. Explain the following allusions: (*a*) his brows bound with oak, (*b*) you would be another Penelope, (*c*) I cannot call you Lycurguses, (*d*) the repulse of Tarquin, (*e*) this Triton of the minnows, (*f*) Galen.

6. Give the meaning and nothing else of the following words and phrases to be found in the play: housekeepers; crack; fielded; feverous; a murrain on't; irons of a doit; vaward; centuries; his proper harm; I am attended at the cypress grove; censured; God-den; ridges horsed with variable complexions. The mortal gate; moe; official marks.

7. Illustrate from the play the following marks of Elizabethan English and say where each occurs:

(*a*) The ease with which verbs may be formed from adjectives and nouns; two examples of each.

(*b*) Omission of the verb of motion.

(*c*) Formation of the superlative in *est* where we now use *most*.

(*d*) Transposition of the unemphatic possessive adjective pronoun.

(*e*) The omission of *the* between the preposition and the noun.

(*f*) Omission of the relative pronoun.

(*g*) *Who* with an irrational antecedent.

(*h*) Verbs now intransitive used reflexively by Shakspere.

(*i*) Transposition of adverbs.

(*j*) Repetition of the preposition.

(DONALDA DEPARTMENT.)

GERMAN.

TUESDAY, 20TH SEP: MORNING, 9 TO 12.

Examiner,..... LEIGH R. GREGOR, B.A.

1. Translate: Der Engel, der die Blumen verpflegt und in stiller Nacht den Thau darauf träufelt, schlummerte an einem Frühlingstage im Schatten eines Rosenstrauchs. Und als er erwachte, da sprach er mit freundlichem Antlitz: „Lieblichstes meiner Kinder, ich danke dir für deinen erquickenden Wohlgeruch und für deinen kühlen Schatten."

2. Translate: Zur Zeit Heinrichs IV. Königs von Frankreich, ritt einmal ein Bäuerlein von seinem Dorfe nach Paris. Nicht mehr weit von der Stadt begegnete er einem stattlichen Reiter. Es war der König. Sein Gefolge war absichtlich in einiger Entfernung geblieben. „Woher des Wegs, mein Freund? Habt ihr Geschäfte zu Paris?"

3. Translate:

Und der Vater mit frohem Blick,
Von des Hauses weitschauendem Giebel
Überzählet sein blühend Glück,
Siehet der Pfosten ragende Bäume,
Und der Scheunen gefüllte Räume. etc.

4. Translate:

„Dem lieben Gotte weich nicht aus,
Find'st du ihn auf dem Weg!"
Er spricht's und tritt ins Gotteshaus;
Kein Laut ist hier noch reg';
Denn um die Ernte war's und hed.
Im Felde glüht' der Schnitter Flaß. etc.

5. Decline in both numbers: die Tochter, das Auge, der Sturm, der Graf, der Vetter.

6. Decline in the sing. ein Pariser Handschih, ihr schönes Licht.

7. Write the first pers. sing. imperf. ind. and the past part. of geben, helfen, heben, ziehen, gießen, schreiben, verlieren werfen, stehlen, liegen.

8. Translate: The countesses were very happy when they heard the news from their father. I had not much pleasure in Switzerland, because I was sick on the journey. The boy always punished by the teacher when he is naughty. The travellers enjoyed the beauty of the landscape when they were ascending the high mountain.

SECOND YEAR EXHIBITIONS.

GREEK.

THURSDAY, SEPT. 15TH: MORNING, 9 TO 12.

Examiners,..... { A. J. EATON, M.A., PH.D.
JOHN L. DAY, B.A.

(*α*) Τί οὖν, τὶς ἂν εἴποι, ταῦτα λέγεις ἡμῖν νῦν; ἵνα γνῶτε, ὦ ἄνδρες Ἀθηναῖοι, καὶ αἴσθησθε ἀμφότερα, καὶ τὸ προίεσθαι καθ' ἕκαστον ἀεί τι τῶν πραγμάτων ὡς ἀλυσιτελὲς, καὶ τὴν φιλοπραγμοσύνην ἡ χρῆται καὶ συζῇ Φίλιππος, ὑφ' ἣν οὐκ ἔστιν ὅπως ἀγαπήσας τοῖς πεπραγμένοις ἡσυχίαν σχήσει. εἰ δ' ὁ μὲν, ὡς ἀεί τι μεῖζον τῶν ὑπαρχόντων δεῖ πράττειν, ἐγνωκὼς ἔσται, ὑμεῖς δὲ, ὡς οὐδενὸς ἀντιλεπτέον ἐῤῥωμένως τῶν πραγμάτων, σκοπεῖσθε εἰς τί ποτ' ἐλπὶς τατῦα τελευτῆσαι. πρὸς θεῶν, τίς οὕτως εὐήθης ἐστὶν ὑμῶν, ὅστις ἀγνοεῖ τὸν ἐκεῖθεν πόλεμον δεῦρο ἥξοντα, ἂν ἀμελήσωμεν; ἀλλὰ μὴν εἰ τούτο γενήσεται, δέδοικα, ὦ ἄνδρες Ἀθηναῖον, μὴ τὸν αὐτὸν τρόπον, ὥσπερ οἱ δανειζόμενοι, ῥᾳδίως ἐπὶ τοῖς μεγάλοις τόκοις μικρὸν εὐπορήσαντες χρόνον ὕστερον καὶ τῶν ἀρχαίων ἀπέστησαν, οὕτω καὶ ἡμεῖς ἂν ἐπὶ πολλῷ φανῶμεν ἐῤῥᾳθυμηκότες, καὶ ἅπαντα πρὸς ἡδονὴν ζητοῦντες, πολλὰ καὶ χαλεπὰ ὧν αὐκ ἠβουλόμεθα ὕστερον εἰς ἀνάγκην ἔλθωμεν ποιεῖν, καὶ κινδυνεύσωμεν περὶ τῶν ἐν αὐτῇ χώρᾳ.

Demosthenes, *Olynthiacs*, I.

(*β*) Φημὶ δὴ δεῖν ὑμᾶς, ἅμα τοῖς μὲν Ὀλυνθίοις βοηθεῖν, (καὶ ὅπως τις λέγει κάλλιστα καὶ τάχιστα οὕτως ἀρεσκει μοι.) πρὸς δὲ Θετταλοὺς πρεσβείων πέμπειν ἢ τοὺς μὲν διδάξει ταῦτα τοὺς δὲ παρξυνεῖ. καὶ γὰρ νῦν εἰσὶν ἐψηφισμένοι Παγασὰς ἀπαιτεῖν, καὶ περὶ Μαγνησίας λόγους ποιεῖσθαι. σκοπεῖσθε μέντοι τοῦτο ὦ ἄνδρες. Ἀθηναῖοι, ὅπως μὴ λόγους ἐροῦσι μονου οἱ παρ' ἡμῶν πρέσβεις, ἀλλὰ καὶ ἔργον τι δεικνύειν ἐξουσιν, ἐξεληλυθότων ἡμῶν ἀξιως τῆς πόλεως, καὶ ὄντων ἐπὶ τοῖς πράγμασιν ὡς ἅπας μὲν λόγος, ἂν ἀπῇ τὰ πράγματα, μάταιόν τι φαίνεται καὶ κενόν, μάλιστα δὲ ὁ παρὰ τῆς ἡμετέρας πόλεως. ὅσῳ γὰρ ἑτοιμότατ' αὐτῷ δοκοῦμεν χρῆσθαι, τοσούτῳ μᾶλλον ἀπιστοῦσι παντες αὐτῷ.

πολλὴν δὴ τὴν μετάστασιν καὶ μεγάλην δεικτέον τὴν μεταβολήν, εἰσφέροντας, ἐξιώτας, ἅπαντα ποιοῦντας ἑτοίμως, εἴπερ τις ὑμῖν προσέξει τὸν νοῦν.

Demosthenes, *Olynthiacs*, II.

(γ) Ὡς φάτο, Ποντόνοος δὲ μελίφρονα οἶνον ἐκίρνα,
τώμησεν δ' ἄρα πᾶσιν ἐπαρξάμενος δεπάεσσιν.
αὐτὰρ ἐπεὶ σπεῖσάν τ' ἔπιόν θ' ὅσον ἤθελε θυμὸς,
τοῖσιν δ' Ἀλκίνοος ἀγορήσατο καὶ μετέειπεν
„Κέκλυτε, Φαιήκων ἡγήτορες ἠδὲ μέδοντες,
ὄφρ εἴπω τά με θυμὸς ἐνὶ στήθεσσι κελεύει.
νῦν μὲν δαισάμενοι κατακείετε οἴκαδ' ἰόντες·
ἠῶθεν δὲ γέροντας ἐπὶ πλέονας καλέσαντες
ξεῖνον ἐνὶ μεγάροις ξεινίσσομεν ἠδὲ θεοῖσιν.
ῥέξομεν ἱερὰ καλὰ, ἔπειτα δὲ καὶ περὶ πομπῆς
μνησόμεθ', ὥς χ' ὁ ξεῖνος ἀνευθε πόνου καὶ ἀνίης
πομπῇ ὑφ' ἡμετέρῃ ἣν πατρίδα γαῖαν ἵκηται
χαίρων παρπαλίμως, εἰ καὶ μάλα τηλόθεν ἐστὶν,
μηδέ τι μεσσηγὺς γε κακὸν καὶ πῆμα πάθῃσιν
πρίν γε τὸ ἧς γαίης ἐπιβήμεναι· ἔνθα δ' ἔπειτα
πείσεται ἅσσα οἱ Αἶσα κατὰ Κλῶθές τε βαρεῖαι
γεινομένῳ νήσαντο λίνῳ, ὅτε μιν τέκε μήτηρ.

Homer, *Odyssey*, VII.

(δ) ΣΩ Οὐκ ἄρα που κατὰ τὸν σὸν λόγον δωριστὶ ἡρμόσμεθα ἐγώ τε καὶ σύ, ὦ Λάχης· τὰ γὰρ ἔργα οὐ ξυμφωνεῖ ἡμῖν τοῖς λόγοις. ἐργῳ μὲν γάρ, ὡς ἔοικε, φαίη ἂν τις ἡμᾶς ἀνδρείας μετέχειν, λόγῳ δ', ὡς ἐγῷμαι, οὐκ ἄν, εἰ νῦν ἡμῶν ἀκούσειε διαλεγομένων. ΛΑ Ἀληθέστατα λέγεις. ΣΩ. Τί οὖν; δοκεῖ καλὸν εἶναι οὕτως ἡμᾶς διακεῖσθαι; ΛΑ. οὐδ' ὁπωστιοῦν ΣΩ. Βούλει οὖν ᾧ λέγομεν πειθώμεθα τό γε τοσοῦτον; ΛΑ. τὸ ποῖον δὴ τοῦτο, καὶ τίνι τούτῳ; ΣΩ. τῷ λόγῳ, ὃς καρτερεῖν κελευει. εἰ οὖν βούλει, καὶ ἡμεῖς ἐπὶ τῇ ζητήσει ἐπιμείωμέν τε καὶ καρτερήσωμεν, ἵνα καὶ μὴ ὑμῶν αὐτὴ ἡ ἀνδρεία καταγελάσῃ ὅτι οὐκ ἀνδρείως ἀντὴν ζητοῦμεν, εἰ ἄρα πολλάκις αὐτὴ ἡ καρτέρησίς ἐστιν ἀνδρεία. ΛΑ· Ἐγὼ μὲν ἕτοιμος, ὦ Σώκρατες, μὴ προαφίστασθαι. καίτοι ἀήθης γ' εἰμὶ τῶν τοιούτων λόγων, ἀλλά τίς με καὶ φιλονεικία εἴληφε πρὸς τὰ εἰρημένα, καὶ ὡς ἀληθῶς ἀγανακτῶ, εἰ οὕτωσι ἃ νοῶ μῆ οἷός τ' εἰμὶ εἰπεῖν· νοεῖν μὲν γὰρ ἔμοιγε δοκῶ περὶ ἀνδρείας, ὅ τι ἔστιν, οὐκ οἶδα δ' ὅπῃ με ἄρτι διέφυγεν, ὥστε μὴ ξυλλαβεῖν τῷ λόγῳ αὐτὴν καὶ εἰπεῖν ὅ τι ἔστιν. ΣΩ. Οὐκοῦν, ὦ φίλε, τὸν ἀγαθὸν κυνηγέτης μεταθεῖν χρὴ καὶ μὴ ἀνιέναι; ΛΑ. Παντάπασι μεν οὖν. ΣΩ. Βούλει οὖν καὶ Νικίαν τόδ' παρακαλῶμεν ἐπὶ τὸ κυνηγέσιον, εἴ τι ἡμῶν εὐπορώτερός ἐστιν; ΛΑ. Βούλομαι· πῶς γαρ οὔ.

Plato, *Laches*.

II. Translation at Sight,

(α) Τὴν δὲ Πάρις μύθοισιν ἀμειβόμενος προσέειπεν.
"Μή με, γύναι, χαλεποῖσιν ὀνείδεσι θυμὸν ἐνίπτε.
Νῦν μὲν γὰρ Μενέλαος ἐνίκησεν σὺν Ἀθήνῃ,
Κεῖνον δ' αὖτις ἐγώ· παρὰ γὰρ θεοί εἰσι καὶ ἡμῖν.
Ἀλλ' ἄγε δὴ φιλότητι τραπείομεν εὐνηθέντε.
Οὐ γὰρ πώ ποτέ μ' ὧδέ γ' ἔρως φρένας ἀμφεκάλυψεν,
Οὐδ' ὅτε σε πρῶτον Λακεδαίμονος ἐξ ἐρατεινῆς
Ἔπλεον ἁρπάξας ἐν ποντοπόροισι νέεσσιν,
Νήσῳ δ' ἐν Κρανάῃ ἐμίγην φιλότητι καὶ εὐνῇ,
Ὡς σεο νῦν ἔραμαι καί με γλυκὺς ἵμερος αἱρεῖ"
Ἦ ῥα, καὶ ἦρχε λέχοσδε κιών· ἅμα δ' εἵπετ' ἀκοιτις.
Τὼ μὲν ἀρ' ἐν τρητοῖσι κατεύνασθεν λεχέεσσιν,
Ἀτρείδης δ' ἀν' ὅμιλον ἐφοίτα θηρὶ ἐοικὼς,
Εἴ που ἐσαθρήσειεν Ἀλέξανδρον θεοειδέα.

(β) Ἐντεῦθεν ἐκκλησίαν ἐποίουν, εἰς ἣν ἡ βουλὴ εἰσήνεγκε τὴν ἑαυτῆς γνώμην Καλλιξένου εἰπόντος τήνδε· Ἐπειδὴ τῶν τε κατηγορούντων κατὰ τῶν στρατηγῶν καὶ ἐκείνων ἀπολογουμένων ἐν τῇ προτέρᾳ ἐκκλησίᾳ ἀκηκόασι, διαψηφίσασθαι Ἀθηναίους ἅπαντας κατὰ φυλάς· θεῖναι δὲ εἰς τὴν φυλὴν ἑκάστην δύο ὑδρίαι· ἐφ' ἑκάστῃ δὲ τῇ φυλῇ κήρυκα κηρύττειν, ὅτῳ δοκοῦσιν ἀδικεῖν οἱ στρατηγοὶ οὐκ ἀνελόμενοι τοὺς νικήσαντας ἐν τῇ ναυμαχίᾳ, εἰς τὴν προτέραν ψηφίσασθαι, ὅτῳ δὴ μή, εἰς τὴν ὑστέραν· ἂν δὲ δόξωσιν ἀδικεῖν θανάτῳ ζημιῶσαι, καὶ τοῖς ἑνδεκα παραδοῦναι σαὶ τὰ χρήματα δημοσιεῦσαι, τὸ δ' ἐπιδέκατον τῆς θεοῦ εἶναι. παρῆλθε δέ τις εἰς τὴν ἐκκλησίαν φάσκων ἐπὶ τεύχους ἁλφίτων σωθῆναι· ἐπιστέλλειν δ' αὐτῷ τοὺς ἀπολλυμένους ἐὰν σωθῇ ἀπαγγεῖλαι τῷ δήμῳ ὅτι οἱ στρατηγοὶ οὐκ ἀνείλοντο τοὺς ἀρίστους ὑπὲρ τῆς πατρίδος γενομένους. τὸν δὲ Καλλιξενον προσεκαλέσαντο παράνομα φάσκοντες γεγραφέναι Εὐρυπτόλεμός τε ὁ Πεισιάνακτος καὶ ἄλλοι τινές. τοῦ δὲ δήμου ἔνιοι ταῦτα ἐπῄνουν, τὸ δὲ πλῆθος ἐβόα δεινὸν εἶναι εἰ μή τις ἐάσει τὸν δῆμον πράττειν ὃ ἂν βούλεται.

(γ) Οἱ δὲ ταῦτ' ἐπῄνουν καὶ ἐκέλευον αὐτὸν τάξαι τῷ ναύτῃ δραχμὴν Ἀττικήν, διδάσκοντες ὅτι ἂν οὗτος ὁ μισθὸς γένηται, οἱ τῶν Ἀθηναίων ναῦται ἀπολείψουσι τὰς ναῦς, καὶ μέτω χρήματα ἀναλωσει. ὁ δὲ καλῶς μὲν ἔφη αὐτοὺς λέγειν, οὐ δυνατὸν δ' εἶναι παρ' ἃ βασιλεῦς ἐπέστειλεν αὐτῷ ἄλλαι ποιεῖν. εἶναι δὲ καὶ τὰς συνθήκας οὕτως ἐχούσας, τριάκοντα μνᾶς ἑκάστῃ νηῒ τοῦ μηνὸς διδόναι, ὁπόσας ἂν βούλωνται τρέφειν Λακεδαιμόνιοι. ὁ δὲ Λύσανδρος τότε μὲν ἐσιώπησε· μετὰ δὲ τὸ δεῖπνον, ἐπεὶ αὐτῷ προπιὼν ὁ Κῦρος ἤρετο τί ἂν μάλιστα χαρίζοιτο ποιῶν, εἶπεν ὅτι Εἰ πρὸς τὸν μισθὸν ἑκάστῳ ναύτῃ ὀβολὸν προσθείης. ἐκ δὲ τούτου τέτταρες ὀβολοὶ ἦν ὁ μισθός, πρότερον δὲ τριώβολον.

III. Greek Composition.

(1) A sound mind is the best of possessions. (2) The triremes were taken with their crews. (3) He said that Alcibiades did not come into his house as a friend. (4) Accustom yourself to bear what comes from the gods. (5) It is said that those who have been badly treated bear it in mind longer than those who have been well treated. (6) He said that he was general, and that the others had no power to give any orders. (7) It is impossible for you to shew either excessive pity or favor to Andocides. (8) Fear the gods, honor your parents, obey the laws. (9) Having no one with whom to converse, he went away. (10) If he is proved to be a good citizen, I think you ought to praise him.

LATIN.

Thursday, Sept. 15th:—Afternoon, 2 to 5.

Examiner,..... A. Judson Eaton, Ph. D.

(A) TRANSLATION FROM PRESCRIBED AUTHORS.

1. Di patrii Indigetes, et Romule, Vestaque mater,
quae Tuscum Tiberim et Romana Palatia servas,
hunc saltem everso iuvenem succurrere saeclo
ne prohibete. Satis iam pridem sanguine nostro
Laomedonteae luimus periuria Troiae.
Iam pridem nobis caeli te regia, Caesar,
invidet, atque hominum queritur curare triumphos;
quippe ubi fas versum atque nefas: tot bella per orbem,
tam multae scelerum facies; non ullus aratro
dignus honos; squalent abductis arva colonis,
et curvae rigidum falces conflantur in ensem.
Hinc movet Euphrates, illinc Germania bellum;
vicinae ruptis inter se legibus urbes
arma ferunt, saevit toto Mars impius orbe:
ut cum carceribus sese effudere quadrigae,
addunt in spatia, et frustra retinacula tendens
fertur equis auriga, neque audit currus habenas.

Virgil, Georgics, Bk. I, 498-514.

2. Solvitur acris hiems grata vice veris et Favoni,
trahuntque siccas machinae carinas,
ac neque iam stabulis gaudet pecus, aut arator igni,
nec prata canis albicant pruinis.
Iam Cytherea choros ducit Venus, imminente Luna,
iunctaeque Nymphis Gratiae decentes

alterno terram quatiunt pede, dum graves Cyclopum
Vulcanus ardens urit officinas.
Nunc decet aut viridi nitidum caput impedire myrto,
aut flore, terrae quem ferunt solutae.
nunc et in umbrosis Fauno decet immolare lucis,
seu poscat agna, sive malit haedo.
Pallida mors aequo pulsat pede pauperum tabernas,
regumque turres. O beate Sexti,
vitae summa brevis spem nos vetat inchoare longam.
Iam te premet nox, fabulaeque Manes,
et domus exilis Plutonia; quo simul mearis,
nec regna vini sortiere talis,
nec tenerum Lycidan mirabere, quo calet iuventus
nunc omnis et mox virgines tepebunt.

HORACE, ODES, I, 4.

3. Legati Romani ab Carthagine, sicut iis Romae imperatum erat, in Hispaniam, ut adirent civitates, ut in societatem perlicerent aut averterent a Poenis, traiecerunt. ad Bargusios primum venerunt, a quibus benigne excepti, quia taedebat imperii Punici, multos trans Hiberum populos ad cupidinem novae fortunae erexerunt. ad Volcianos inde est ventum quorum celebre per Hispaniam responsum ceteros populos ab societate Romana avertit. ita enim maximus natu ex iis in concilio respondit: "quae verecundia est, Romani, postulare vos, uti vestram Carthaginiensium amicitiae praeponamus, cum qui id fecerunt Saguntini crudelius, quam Poenus hostis perdidit, vos socii prodideritis? ibi quaeratis socios censeo, ubi Saguntina clades ignota est: Hispanis populis sicut lugubre, ita insigne documentum Sagunti ruinae erunt, ne quis fidei Romanae aut societati confidat." inde extemplo abire finibus Volcianorum iussi ab nullo deinde concilio Hispaniae benigniora verba tulere. ita nequiquam peragrata Hispania in Galliam transeunt.—LIVY, XXI, 19.

4. Dum haec in Italia geruntur, Cn. Cornelius Scipio in Hispaniam cum classe et exercitu missus cum ab ostio Rhodani profectus Pyrenaeosque montes circumvectus Emporiis adpulisset classem, exposito ibi exercitu orsus a Lacetanis omnem oram usque ad Hiberum flumen partim renovandis societatibus partim novis instituendis Romanae dicionis fecit. inde conciliatas clementiaeque fama non ad maritimos modo populos, sed in mediterraneis quoque ac montanis ad ferociores iam gentes valuit; nec pax modo apud eos, sed societas etiam armorum parata est, validaeque aliquot auxiliorum cohortes ex iis conscriptae sunt. Hannonis cis Hiberum provincia erat; eum reliquerat Hannibal ad regionis eius praesidium. itaque, priusquam alienarentur omnia, obviam eundum ratus castris in conspectu hostium positis in aciem eduxit. nec Romano differendum certamen visum, quippe qui sciret cum Hannone et Hasdrubale sibi dimicandum esse, malletque adversus singulos separatim quam adversus duos simul rem gerere.—LIVY, XXI., 60.

(B) TRANSLATION AT SIGHT.

Sharp Practice.

5. C. Canius, eques Romanus, nec infacetus et satis litteratus, cum se Syracusas otiandi, ut ipse dicere solebat, non negotiandi causa contulisset dictitabat se hortulos aliquos emere velle, quo invitare amicos et ubi se oblectare sine interpellatoribus posset. Quod cum percrebruisset,[1] Pythius ei quidam, qui argentariam faciebat Syracusis, venales quidem se hortos non habere [dixit]: sed licere Canio uti, si vellet, ut suis: et simul ad cenam hominem in hortos invitavit in posterum diem. Cum ille promisisset, tum Pythius qui esset, ut argentarius, apud omnes ordines gratiosus, piscatores ad se convocavit et ab eis petivit, ut ante suos hortulos postridie piscarentur, dixitque, quid eos facere vellet. At cenam tempore venit Canius. Opipare[2] a Pythio apparatum convivium; cymbarum ante oculos multitudo; pro se quisque quod ceperat, afferebat; ante pedes Pythii pisces abiciebantur.

Tum Canius: "Quaeso," inquit, "quid est hoc, Pythi? Tantumne piscium? tantumne cymbarum?" Et ille: "Quid mirum," inquit: "hoc loco est, Syracusis quicquid est piscium: hic aquatio: hac villa isti carere non possunt." Incensus Canius cupiditate contendit a Pythio, ut venderet. Gravate ille primo. Quid multa? impetrat. Emit homo cupidus et locuples tanti, quanti Pythius voluit. Invitat Canius postridie familiares suos; venit ipse mature; scalmum[3] nullum videt. Quaerit e proximo vicino, num feriae quaedam piscatorum essent. "Nullae, quod sciam," inquit: "sed hic piscari nulli solent. Itaque heri mirabar, quid accidisset."—Cicero.

[1] *percrebrescere*, to be spread abroad.
[2] *opipare*, richly, sumptuously.
[3] *scalmus*, a thole-pin, boat.

Evander addresses Aeneas.

6. Tum sic pauca refert: "Ut te, fortissime Teucrum,
accipio agnoscoque libens! Ut verba parentis
et vocem Anchisae magni voltumque recordor!
Nam memini Hesionae visentem regna sororis
Laomedontiaden Priamum, Salamina petentem,
protinus Arcadiae gelidos invisere finis.
Tum mihi prima genas vestibat flore iuventas,
mirabarque duces Teucros, mirabar et ipsum
Laomedontiaden, sed cunctis altior ibat
Anchises: mihi mens iuvenali ardebat amore
compellare virum et dextrae coniungere dextram.
Accessi et cupidus Phenei sub moenia duxi.
Ille mihi insignem pharetram Lyciasque sagittas

discedens chlamydemque auro dedit intertextam.
frenaque bina meus quae nunc habet aurea Pallas.
Ergo et quam petitis iuncta est mihi foedere dextra,
et lux cum primum terris se crastina reddet,
auxilio laetos dimittam opibusque iuvabo.
Interea sacra haec, quando huc venistis amici,
annua, quae differre nefas, celebrate faventes
nobiscum et iam nunc sociorum adsuescite mensis."—VIRGIL.

(C) LATIN COMPOSITION.

7. When the war was finished in Africa the Romans fraudulently seized Sardinia, and imposed a war tribute on Carthage. About the same time the loss of Sicily sorely vexed a high-spirited people, and the Carthaginians determined on war. First they attacked Rome's allies in Spain, who vigorously undertook their own defence in the hope of aid from Rome. But in vain; their chief city fell after a siege of eight months, and orders were given for the massacre of all the adult males. Terror-stricken by this calamnity, the neighboring tribes submitted, believing that they had been cruelly betrayed by their Roman allies, and that they could no longer trust to Roman faith. Mingled shame and fear took possession of the hearts of the Romans; war was forthwith declared and troops levied; while ambassadors were sent to visit the states in Spain to win them over to an alliance with Rome. Save that they were received and heard, no friendly answer was received, until they came to Marseilles. With the information there acquired, the envoys returned home, where they found the whole city excited by its anticipations of war.

GENERAL PAPER, (Classics).

TUESDAY, SEPT. 20TH :—AFTERNOON, 2 TO 5.

Examiner, ... A. J. EATON, M.A., PH.D.

(Candidates will answer any *fifteen* of the following questions.)

1. State briefly what you know of Spurius Maelius, Papirius Cursor, Curius Dentatus, Appius Claudius Caecus, Hamilcar Barca.

2. What laws or constitutional changes were introduced by Licinius, Stolo, Publilius Philo. C. Gracchus. Sulla?

3. What was the date of the coalition between Pompeius and the Democrats, and on what conditions was the bargain struck?

4. Describe the social condition af Athens at the time of Solon, and Solon's legislation to remedy the miseries of that period.

5. Narrate the story of the struggle between Sparta and Thebes.

6. Give a brief account of the life and works of Plato, Demosthenes, and Livy.

7. State the events which led to the delivery of the Olynthiacs. What result followed from these speeches? What is their probable chronological order?

8. What is the origin of the *r* in *dirimo* and *generis*, *p* in *sumpsi*, *hiemps* and *scriptus*, *g* in *segmentum*, *d* in *redeo* and *prodest*, *β* in *βροτός*, and *ζ* in *μείζων*.

9. Explain the form *conicio*, its pronunciation, and the quantity of the *o* in *con—*.

10. Why is it necessary to distinguish with care *syllabic* and *vocalic* quantity?

11. Accentuate (with explanations) *ανθρωπος*, *νησος*, *τουτων περι* (*about these*), *φιλειτε*, *τιμα* (for *τίμαε*); deaque, Virgili, illic.

12. Distinguish *bina castra* and *duo castra*; *μύριοι* and *μυρίοι*; the *first aorist* and *second aorist* of *ἵστημι*; *βίος* and *ζωή*.

13. In what ways may the Latin future infinitive passive be formed?

14. Express the following dates according to our notation: A.D. IV. Non. Sextiles, C. Terentio Varrone L. Aemilio Paullo II. cos. A.D. VIII Kal. Apr. Cn. Pompeio Magno M. Licinio Crasso cos.: Id. Jan. A.U.C. CCCCXL. Write the following in Latin: June 20th, B.C. 307; Nov. 8th, B.C. 63.

15. Connect etymologically the following words with any corresponding Latin words: *ἕπομαι*, *θήρ*, *οἶνος*, *ἕζομαι*, *νεῦρον*, *ἵστημι*.

16. Give English words cognate with these Latin forms: *qui*, *cor*, *genu*, *tres*, *dens*, *pater*, *frater*, *veho*, *vinum*.

17. Write notes on: *Accusative absolute*; *the sophists*; *βασιλεύς*; *γραφή*; *κατὰ συμμορίας*.

18. Give the derivation and meaning of following words: *πολύτλας*, *ἀμβροτα*, *πυκινόν*, *κτήματα*, *ἐπίωρκον*, *εὐήθης*; *comminus*, *fissile*, *imbriferum*, *cubile*.

19. Explain the following conditional sentences:

(1) *τῶν ἀτοπωτάτων μεντὰν εἴη, εἰ ἃ νῦν ἅπαντες ὀφλισκάνων ὅμως ἐκλαλεῖ, ταῦτα δυνηθεὶς μὴ πράξει.*

(2) *ἐγὼ μὲν γὰρ σφοδρ' ἂν ἡγούμην καὶ αὐτὸς φοβερόν τὸν Φίλιππον καὶ θαυμαστὸν, εἰ τὰ δίκαια πράττοντα ἑώρων ἠξημένον.*

(3) *εἰ δέ τι πταίσει, τοτ' ἀκριβῶς αὐτοῦ ταῦτ' ἐξετασθήσεται.*

(4) *εἰ δ' ἄρα τις καὶ μοῦνος ἰὼν ξύμβληται ὀδίτης οὔτι κατακρύπτουσιν.* (Od. 204).

20. Explain the allusions in :—

(*a*) Chaoniam glandem. (Virgil).

(*b*) adparet liquido sublimis in aere Nisus· (Virgil).

(*c*) Saeculum Pyrrhae. (Horace).

(*d*) Scriberis Vario....

.. *Maeonii* carminis alite. (Horace).

(*e*) consulem ante *inauspic*ato factum revocantibus ex ipsa acie diis atque hominibus non paruisse ; nunc conscientia spretorum et Capitolium et *sollemnem votorum nuncupationem* fugisse, ne die initi magistratus Iovis optimi maximi templum adiret, ne senatum invisus ipse et sibi uni invisum videret consuleretqne, ne *Latinas* indiccret *Iovi*que *Latiari* sollemne sacrum in monte faceret, ne auspicato profectus in Capitolium ad vota nuncupanda, *paludatus* indo cum lictoribus in provinciam iret. (Livy.)

21. Discuss peculiarities of Syntax or Prosody in the following:

(*a*) emenso Olympo (Virg Georg. I. 450).

(*b*) Latonamque supremo
dilectam penitus Iovi (Hor. Odes I, 212.)

(*c*) integer vitae scelerisque purus. (Hor. Odes I, 22.1).

(*d*) Glauco et Panopeae et Inoo Melicertae. (Vir. Geog. I, 437).

(*e*) *ὑμεῖς δ' ὀτρύνεσθαι ἄμ' ἠοῖ φαινομένηφιν,*
ὡς κ' ἐμὲ τὸν δύστηνον ἐμῆς ἐπιβήσετι πάτρης.

(Odys. VII., 222-3)

EUCLID, ALGEBRA, TRIGONOMETRY.

FRIDAY, SEPT. 16th :– MORNING, 9 TO 12.

Examiner, ... ALEXANDER JOHNSON, M.A., LL.D.

1. If two similar parallelograms have a common angle, and be similarly situated, they are about the same diagonal.

2. Similar triangles are in the duplicate ratio of their homologous sides (define duplicate ratio).

3. Construct an isosceles triangle such that each of the angles at the base shall be double the vertical angle.

4. If the sum of two opposite angles of a quadrilateral be equal to two light angles, it can be inscribed in a circle.

5. Solve the equations :—

$$(a)\ \sqrt{a+x} + \sqrt{a-x} = \frac{12a}{5\sqrt{a+x}}$$

$$(b)\ \left\{\begin{array}{l} a(x^2+y^2) - b(x^2-y^2) = 2a \\ (a^2-b)^2 (x^2-y^2) = ab \end{array}\right\}$$

$$(c)\ \frac{a}{b+x} + \frac{a}{b-x} = c.$$

6. Arrange in order of magnitude

$$\sqrt{50},\ \sqrt[3]{344},\ \sqrt[4]{2402}$$

7. Find two fractions whose sum is 5-6 and whose difference is equal to their product.

8. The sum of a certain number and its square root is 42 ; find the number.

9. Calculate sin 18° to three places of decimal, proving the formula.

10. Prove $\tan(A + B) = \frac{\tan A + \tan B}{1 - \tan A \tan B}$ and thence find $\tan(A + B + C)$.

11. Find the circular measure of 18°.

12. In any triangle $\sin \frac{1}{2} A = \sqrt{\frac{(s-b)(s-c)}{bc}}$

GEOMETRY.

FRIDAY, SEPTEMBER 16TH :—AFTERNOON, 2 TO 5.

Examiner,..... ALEXANDER JOHNSON, M.A., LL.D.

1. By reciprocating Pascal's theorem, concerning an inscribed hexagon deduce Briductions.

2. Given the base and sum of sides of a triangle, the polar of the vertex with respect to one extremity of the base as origin always touches a fixed circle.

3. Describe a circle touching three fixed circles: prove that eight can be described.

4. If two circles intersect, and if from either point of intersection two diameters be drawn, the straight line joining their extremities will pass through the other point of intersection and be at right angles to the chord of intersections.

5. Describe a circle such that the radical axes of it and each of three given circles shall pass respectively through three given points.

6. Prove that the anharmonic ratio of four points on a circle is the same as the ratio of the rectangles under the opposite sides of the quadrilateral formed by joining the four points.

7. Any quadrilateral is divided by a straight line into two others: prove that the intersections of the diagonals of the three lie in a straight line.

8. The reciprocals of lines in harmonical progression are in arithmetical progression.

9. Describe a circle touching a given circle, and a given straight line at a given point.

10. One vertex of a rectangle turns round a fixed point, and the two adjacent vertices move along a given circle, fine the locus of the remaining vertex.

THEORY OF EQUATIONS—ALGEBRA.

WEDNESDAY, SEPT. 21ST:—MORNING, 9 TO 12.

Examiner,..... .... ALEXANDER JOHNSON, M.A, LL.D.

1. Solve the equation

$$x^4 + 2x^3 - 5x^2 + 6x + 2 = 0$$

which has a root $-2+\sqrt{3}$

2. Remove the fractional coefficients from the equation

$$x^4 + \tfrac{3}{10}x^2 + \tfrac{13}{25}x + \tfrac{77}{1000} = 0$$

3. Find the quadratic factors of

$$x^6 + 1 = 0$$

4. Give what is usually called Cardan's solution of a cubic equation.

5. Prove that any value of x which renders $f(x)$ a maximum or minimum is a root of the derived equation $f^1(x) = 0$

(*a*) Find the max. or min. value of

$$f(x) = 2x^2 + x - 6$$

6. Find a superior limit to the positive roots of

$$x^8 + 20\,x^7 + 4\,x^6 - 11\,x^5 - 120\,x^4 + 13\,x - 25 = 0$$

7. Find for what value of r the number of combinations of n things r at a time is greatest.

8. Write down the expansion of

$$(1 - x)^{-1}$$

9. Prove the Binomial Theorem for a positive index.

10. Expand by the method of indeterminate coefficients $\frac{2 + x^2}{1 + x - x^2}$ in a series of ascending powers of x as far as the term involving x^5.

HIGHER ENTRANCE EXAMINATION AND SECOND YEAR EXHIBITIONS.

ENGLISH GRAMMAR.

MONDAY, SEPT. 19TH :—MORNING, 9 TO 12.

Examiners,..... { CHAS. E. MOYSE, B.A. / W. J. MESSENGER, B.A.

HIGHER ENTRANCE EXAMINATION.

(N.B.—Question 5 is obligatory).

1. (*a*) Give the plural of the following nouns, and the rule in each case : son-in-law, knight-templar, madame, virtuoso, soliloquy, chrysalis.

(*b*) Make notes on the form and use of the following : news, folks riches, brethren, summons, small-pox.

2. Name the modes of distinguishing gender, and give the feminine of the following : earl, hero, marquis, fox, stag, executor, prior, caterer.

3. Classify adverbial clauses and give examples.

4. (*a*) Give the rules for the sequence of tenses with examples.
(*b*) Name the defective verbs, and state a peculiarity of these verbs.

5. Parse and analyse :

"If time improve our wit as well as wine,
Say at what age a poet grows divine."

6. Describe with examples the different uses of '*but*,' '*that*,' and words ending in '*ing*.'

7. (*a*) Define case, and explain the inflection '*s* in the possessive case.

(*b*) Make a note on the use of the preposition '*to*' before the infinitive.

8. Analyse:

"He now prepared
To speak: whereat their doubled ranks they bend
From wing to wing, and half enclose him round
With all his peers: attention held them mute.
Thrice he assayed; and thrice, in spite of scorn,
Tears, such as angels weep, burst forth; at last
Words, interwoven with sighs, found out their way."

9. Correct or justify the following, giving your reasons in each case:

(*a*) "It is, of course, not one of the poems which show the poet's genius at its highest point."

(*b*) "One of the most valuable books that has appeared in any language."

(*c*) "Hardly had misconduct in one shape succumbed to treatment than it broke out in another."

(*d*) "The seventeenth century evidently had a different notion of books and women than that which flourishes in the nineteenth."

(*e*) "I should have thought it a gross act of tyranny to have interfered either with his political or his religious opinions."

10. Mention, with examples, all the uses of a noun in the nominative and a noun in the objective case.

SECOND YEAR EXHIBITIONS.

(Candidates will answer questions 1, 2, 3, 4, 5 (obligatory), 6, 7, 9, 10 of the Higher Entrance paper and also the following.)

11. Write etymological notes on the following: holy, queen, child, empty, advance, nightingale, year, it.

12. Give the force of the following affixes:—hood, ling, some, ard, eer, oon, ock, ish, ic, age; give two examples of each affix, and state whether it is of Anglo-Saxon or Classic origin.

13. Give a list of 20 words illustrating the Celtic and Scandinavian elements in our language. Give the meaning of these elements in each case.

ENGLISH LITERATURE.

SHAKSPERE, *As You Like It.* TRENCH, *Study of Words.*

MONDAY, SEPT. 19TH:—AFTERNOON, 2 TO 5.

Examiners, ... { CHAS. E. MOYSE, B.A.
P. T. LAFLEUR, M.A.

(Write the answers to A and B on separate sets of paper.)

A. *As You Like It.*

1. "Rosalind is at the same time the most interesting character and the life of *As You Like It.*" Discuss this statement.

2. Classify the personages of the play in dramatic groups and in pairs.

3. "*As You Like It* shows traces of the earlier manner of Shakspere in its fantastic situations and plot, and in occasional affectation in diction." Justify or reject this critical opinion.

4. Explain: the toad ugly and venomous wears yet a precious jewel in his head, he drew a dial from his poke, bearded like the pard, most gentle pulpiter, borrow me Gargantua's mouth first, I will weep for nothing like Diana in the fountain.

5. Give in outline the substance of the first dialogue between the exiled Duke and his companions, and the first meeting, in the wood, of Orlando and the disguised Rosalind.

B. *Study of Words.*

1. Was language invented?

2. Show that shape and configuration may be incorporated in proper names.

3. In proof of what is appeal made to words beginning with the first letter of the alphabet? Give examples.

4. "The Norman was the ruling race." Prove this statement from language.

5. Notice the influence of the Arabs and the Danes on English speech.

6. Give a short list of words directly derived from names famous in classical mythology and history.

7. Make notes on the words maréchal, book, affiance, esemplastice noyade, dabones.

8 Illustrate very briefly the following heads:

(*a*) Hostile use of names.
(*b*) Poetry in the names of flowers.
(*c*) Poetry in architecture.
(*d*) Degeneration of words.
(*e*) Words displaying the history of commerce.
(*f*) Scruples about the use of words.

9. Give what you consider to be the three most important statements regarding synonyms.

FRENCH.

Examiners,..... { J. P. Darey, M.A., LL.D.
Rev. J. L. Morin, M.A.

1. Translate :—

(*a*) Chacun a son défaut où toujours il revient :
Honte ni peur, n'y remédie. (1)
Sur ce propos d'un conte il me souvient :
Je ne dis rien que je n'appuie
De quelque exemple. Un suppôt de Bacchus
Altérait sa santé, son esprit et sa bourse :
Telles gens (2) n'ont pas fait la moitié de leur course
Qu'ils sont au bout de leurs écus.

(*b*) Socrate un jour faisant bâtir,
Chacun censurait (3) son ouvrage ;
L'un trouvait les dedans, pour ne lui point mentir,
Indignes d'un tel personnage ;
L'autre blâmait la face, et tous étaient d'avis,
Que les appartements en étaient trop petits,
" Plût (4) au ciel que de vrais amis,
Telle qu'elle est, dit-il, elle pût (5) être pleine ! "

2. (1) Explain the omission of the article before *honte* and *peur*, and of the first negative.

(2) Give rules of agreement of adjectives with *gens*.

(3) Account for this imperfect tense.

(4) Account for the subjunctive.

(5) Account for the subjunctive.

3. Translate :—

(*a*) Et pour ne faire rien, monsieur, est-ce qu'il ne faut pas manger ? Il leur vaudrait bien mieux, les pauvres animaux, de travailler beaucoup et de manger de même. Cela me fend le cœur, de les voir ainsi exténués ; car enfin j'ai une tendresse pour mes chevaux, qu'il me semble que c'est moi-même, quand je les vois pâtir ; je m'ôte tous les jours pour eux les choses de la bouche : et c'est être, monsieur, d'un naturel trop dur que ne n'avoir nulle pitié de son prochain.

(*b*) Il a beau être visible. M'ouvrir à vous d'un secret. Qui se sent morveux qu'il se mouche. Tout cousu de pistoles. Des cheveux de son crû qui ne content rien. Lorsque l'on a que faire. Il en passera partout. Révérence parler. Leur épée de chevet. Tu as l'audace d'aller sur mes brisées ! Je n'en démordrai point. Vous rendre partie contre lui.

Molière. *L'Avare.*

4. (*a*) Give a summary of *L'Avare*.

(*b*) From what celebrated writer is it borrowed?

(*c*) Sketch the life of the author.

5. (*a*) Write down the third person singular, imperfect subjunctive of *conclure, joindre, s'enquérir, Pouvoir, craindre, vaincre.* (*b*) Write correctly the past particles, giving rules in each case: Nous nous sommes *rencontré*, mais nous ne nous sommes pas *Parlé*. Où avez-vous *vu* les enfants? Je les ai *vu* à dix pas d'ici.

6. Translate:—Necessity has no law. Gold and silver cannot render man happy. Is your father a physician? Whatever your motives may be your conduct will be blamed. This room is twenty feet long by fifteen feet wide. My mother is useful to and beloved by her friends. Have you broken your arm? Are you the woman who was here yesterday? I am sir. Are you sick, madam? I am. I am going to see a friend of his. He who dined with us is my cousin's best friend.

7. What orthographical changes undergo the verbs ending in *ger, eler, eter, cer?* Give examples.

8. State fully the use of the imperfect indicative and of the past definite in French. Give examples.

GERMAN.

TUESDAY, 20TH SEPTEMBER: MORNING, 9 TO 12.

Examiner.....LEIGH R. GREGOR, B.A.

1. Translate into English.

Der König, der sein liebes Kind vor dem Ausspruche bewahren wollte, ließ den Befehl ausgehen, daß alle Spindeln im Königreiche sollten abgeschafft werden. An dem Mädchen aber wurden die Gaben der weisen Frauen sämmtlich erfüllt, denn es war so schön, sittsam, freundlich und verständig, daß es Jedermann, der es ansah, lieb haben mußte. Es geschah, daß an dem Tage, wo es gerade fünfzehn Jahr' alt ward, der König und die Königin nicht zu Haus waren, und das Fräulein ganz allein im Schloß zurückblieb.

2. Translate:

Da ritt in seines Zornes Wuth
Der Graf ins nahe Holz,
Wo ihm in hoher Oefen Gluth
Die Eisenstufe schmolz.

Hier nährten früh und spät den Brand
Die Knechte mit geschäft'ger Hand;
Der Funke sprüht, die Bälge blasen.
Als gält' es Felsen zu verglasen.

3. Write nom. pl. of: time, village, book, axe, flower, plant, eye, ribbon.

Write gen. sing. of: man (homo), capital, Turkey, France.

Translate into German;

Will you take a walk? Where shall we go? Let us visit the museum. When is it usually closed? It remains open all day, from nine till four. I have never seen anything more magnificent. They have been collecting (sammeln) for centuries This is the largest diamond in the world. There are the crown jewels.

4. What cases does the preposition vor govern? Give the rules which govern its use. Illustrate with two well-composed sentences.

5. Write the first pers. sing. of the following tenses: second. cond. of werden, perf. ind. of sein, imperf. indic. of reden, pluperf subj. of sein, first fut. of haben, second fut. of werden, imperf. subj. of loben, pres. subj. of werden.

6. Decline the third person sing. of the personal pronoun in all genders.

7. Translate: This gentleman would buy my house, if he had money enough. The doctor shook his head for he had no hope. I am ashamed of you, because you are not industrious. The difference between my brother and me is not great. What would you do with your money, if you were rich? Will the boy have a table and chairs in the room?

(DONALDA DEPARTMENT.)

GERMAN.

TUESDAY, 20TH SEPTEMBER: MORNING, 9 to 12.

Examiner..... LEIGH R. GREGOR, B. A.

1. Translate: Egmont hatte anfangs Luft bezeigt, von dem Schaffot eine Anrede an das Volk zu halten. Als ihm aber der Bischof vorstellte, daß er entweder nicht gehört werden, oder, wenn dies auch geschähe, bei der gegenwärtigen gefährlichen Stimmung des Volks leicht zu Gewaltthätigkeiten Anlaß geben könnte, die seine Freunde nur ins Verderben stürzen würden, so ließ er dieses Vorhaben fahren.

2. Translate: Es thut mir leid, Sie zu betrüben, gnädiger Herr —Sie wissen, wie groß meine Anhänglichkeit an Sie ist —ich gebe Ihnen eine starke Probe davon in diesem Augenblick—aber Sie wissen auch, wie sehr ich mein Weib liebe. Ich habe sie heute nach einer langen Trennung wieder gesehen! Die arme Frau bezeigte eine so herzliche Freude über meine Zurückkunft, daß ich beschlossen habe, sie nie wieder zu verlassen, und meinen Abschied von Ihnen zu begehren.

3. Translate:

Und lauter immer wird die Frage,
Und ahnend fliegt's mit Blitzesschläge
Durch alle Herzen: „Gebet Acht,
Das ist der Eumeniden Macht
Der fromme Dichter wird gerochen.
Der Mörder bietet selbst sich dar—etc.

4. (*a*) What classes of persons etc., are addressed as du?

(*b*) What is the order of pronouns in sentences? Full answers to both questions.

5. Translate into German:

Entendez-vous ce que je vous dis? Avez-vous de l'encre noire? Bonjour monsieur, comment vous portez-vous (sich befinden) aujourd'hui? Je ne le crois pas. Envoyez-moi l'argent tout de suite.

6. Translate into German :

Will you take a walk ? Where shall we go ? Let us visit the museum. When is it usually closed ? It remains open all day, from nine till four. I have never seen anything more magnificent. They have been collecting (ſammeln) for centuries. This is the largest diamond in the world. There are the crown jewels.

7. What cases does the preposition vor govern ? Give the rules which govern its use. Illustrate with two well-composed sentences.

8. Write the first pers. sing. of the following tenses : second cond. of werden, perf. ind. of ſein, imperf. ind. of reden, pluperf. subj. of ſein, first fut. of haben, second fut. of werden, imperf. subj. of loben, pres. subj. of werden.

9. Decline the third person. sing. of the personal pronoun in all genders.

10. Translate : This gentleman would buy my house, if he had money enough. The doctor shook his head, for he had no hope. I am ashamed of you, because you are not industrious. The difference between my brother and me is not great. What would you do with your money, if you were rich ? Will the boy have a table and chairs in the room ?

CHEMISTRY.

MONDAY, SEPTEMBER 19TH :—AFTERNOON, 2 TO 5.

Examiner,..... .....B. J. HARRINGTON, B.A., PH.D.

1. What volume will 1000 c.c. of Oxygen at 0° and 760 mm. become at a temperature of 17.5° and under a pressure of 740 mm ?

2. State what you know with regard to the preparation and properties of Hydrofluoric Acid.

3. Give the names and formulæ of the Oxy-acids of Sulphur.

4. How is Carbon Disulphide prepared, and what are its properties ?

5. What takes place (*a*) when a current of Chlorine gas is passed into a dilute and cold solution of Caustic Soda, (*b*) when Nitrogen gas is passed over a white hot mixture of Charcoal and Potassium Carbonate? Give equations.

6. Name and characterise briefly the six crystallographic systems.

7. Describe the Ammonia-Soda process.

8. State what you know with regard to Magnesium and its salts.

9. Calculate the percentage composition (*a*) of crystallised Copper Sulphate, and (*b*) of Gypsum.

10. Give the characteristic reactions of Copper, Mercury and Silver salts.

SCIENCE SCHOLARSHIP.

MATHEMATICS.

ANALYTIC GEOMETRY (*First Paper*).

THURSDAY, SEPT. 15TH:—MORNING, 9 TO 12.

Examiner,..... ALEXANDER JOHNSON, M.A., LL.D.

1. Given the base and the product of the tangents of the halves of the base angles of a triangle: find the locus of the vertex.

2. Prove that the locus of the intersection of tangents at the extremities of conjugate diameters of the ellipse given by the usual equation is

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 2.$$

3. If any straight line cut an hyperbola, prove that the parts intercepted between the curve and its asymptotes are equal.

4. The rectangle under the focal perpendiculars on the tangent to an ellipse is constant and equal to the square of the semi-axis minor.

5. If a curve be such that the distance of any point of it from a fixed point can be expressed as a rational function of the first degree of its coordinates, then the curve must be a conic section, and the fixed points its focus.

6. If we transform an equation of the second degree from one set of rectangular axes to another, the quantities $a + b$ and $ab - h^2$ will remain unaltered.

7. The direction of the diameters of a parabola is the same as that of the line through the origin which meets the curve at an infinite distance.

8. Through the intersection of two circles a right line is drawn: find the locus of the middle point of the portion intercepted between the circles (use polar co-ordinate).

9. Find the equation of the circle through the origin and through (2, 3) and (3, 4).

10. What lines are represented by the equation

$$x^2 - xy + y^2 - x - y + 1 = 0.$$

11. Given the vertical angle of a triangle, find the locus of the point where the base is cut in a given ratio, if the area also is given.

12. Prove that the three bisectors of the sides of a triangle meet in a point, taking for axes two sides of the triangle whose lengths are a and b.

MATHEMATICS.

ANALYTICAL GEOMETRY (*Second Paper*).

FRIDAY, SEPT. 16:—MORNING, 9 TO 12.

Examiner,..... ALEXANDER JOHNSON, M.A., LL.D.

1. If three conics have each double contact with a fourth, six of their chords of intersection will pass three by three through the same points.

2. Prove that the equation

$$l^2 \alpha + m^2 \beta^2 = n^2 \gamma^2$$

denotes a conic with respect to which α, β, γ are the sides of a self conjugate triangle.

3. Prove that all conics which have the same focus have two imaginary common tangents passing through this focus.

4. The locus of a point, such that the square of the tangent from it to a fixed circle, is in a constant ratio to the product of its distances from two fixed lines, is a conic passing through the four points in which the fixed lines intersect the circle.

5. Find the co-ordinates of the centre of curvature for any point on the parabola.

6. If an equilateral hyperbola circumscribe a triangle, it will also pass through the intersections of its perpendicular.

7. If normals be drawn at the extremities of any focal chord, a line drawn through their intersection parallel to the axis major will bisect the chord.

8. Prove that any focal chord of an ellipse is a third proportional to the transverse axis and the parallel diameter.

9. Prove analytically that confocal conics cut at right angles.

10. If in the general equation of the second degree, h^2 be less than ab, prove that the equation may, by transformation of co-ordinates, be always reduced, for an infinite number of pairs of axes, to the form

$$lx^2 + my^2 = 1$$

11. Find the conditions that two straight lines expressed in trilineal co-ordinates may be mutually perpendicular.

12. Prove by trilinear co-ordinates that the three bisectors of the sides of a triangle meet in a point.

DIFFERENTIAL AND INTEGRAL CALCULUS.

TUESDAY, SEPT. 20TH:—MORNING, 9 TO 12.

Examiner, ...ALEXANDER JOHNSON, M.A., LL.D.

1. If r be the radius vector and p the perpendicular from the origin in the tangent to a curve, prove that half the intercept made on the radius vector by the circle of curvature is equal to $p\,\frac{dr}{dp}$.

2. In polar co-ordinates prove that the perpendicular on the tangent is given by the equation

$$\frac{1}{p^2} = u^2 + \left(\frac{du}{d\theta}\right)^2$$

(*a*) Hence show that

$$\frac{d^2u}{d\theta^2} + u = \frac{1}{p^3\,u^2}\,\frac{dp}{dr}.$$

3. Given the angle C of a triangle, prove that $\sin^2 A + \sin^2 B$ is a maximum; and $\cos^2 A + \cos^2 B$ a minimum, when $A = B$.

4. Given $z = a + bz^n$, find the expansion of z by Lagrange's theorem.

5. Find the value of

$$x^m (\sin x)^{\tan x} \left(\frac{\pi - 2x}{2 \sin 2x}\right)^3 \text{ when } x = \frac{\pi}{2}.$$

6. Write down the symbolic forms of Taylor's theorem.

7. Two cones have a common base, the radius of which is 12 feet; the altitude of one is 9 feet, and that of the other is 5 feet; find the radius of a sphere whose entire surface is equal to the sum of the areas of the cones.

8. Prove that the volume of a sphere is to that of its circumscribing cylinder in the proportion of 2 to 3; and that their surfaces also are in the same proportion.

9. Find the length of the curve

$$r^m = a^m \cos m\theta.$$

10. Prove that the area of any focal sector of an ellipse can be expressed in terms of the focal distances of its extremities, of the chord which joins them, and of the axes of the curve.

ALGEBRA AND TRIGONOMETRY.

WEDNESDAY, SEPT. 21ST:—MORNING, 9 TO 12.

Examiner,..... ....ALEX. JOHNSON, M.A., LL.D.

1. Prove that the square of a determinant is symmetrical determinant.

2. Calculate the determinant.

$$\begin{vmatrix} 7, & -2, & 0, & 5, \\ -2, & 6, & -2, & 2, \\ 0, & -2, & 5, & 3 \\ 5, & 2, & 3, & 4, \end{vmatrix}$$

3. Define the *reciprocal* of a given determinant, and express the first minors of the reciprocal in terms of the original coefficients.

4. Find by Newton's method an approximate value of the positive root of the equation

$$x^3 - 2x - 5 = 0$$

5. The equation $x^4 + 4x^3 - 4x^2 - 11x + 4 = 0$ has one root between 1 and 2; find its value, correct to 4 decimal places.

6. The following equations have a root in common, solve them:
$x^3 - 3x^2 - 16x - 12 = 0$: $x^3 - 7x^2 + 5x + 13 = 0$

7. The equation $x^4 - 21x^3 + 166x^2 - 546x + 580 = 0$ has roots of the form a, b, $a + b + (a - b)\sqrt{-1}$: solve it.

8. Show that the point of intersection of two great circles on a sphere and the arc joining their poles are pole and polar with respect to one another.

9. In a spherical triangle find an expression for $\cos \frac{1}{2} A$.

10. In any spherical triangle given, $a = 46° 24'$; $b = 67° 14'$; $c = 81° 21'$; find A.

11. State and prove De Moivre's theorem for a positive integer.

12. Define hyperbolic cosine and sine, and prove

$$\cosh^2 x - \sinh^2 x = 1$$

13. Prove that the expression $e^x P dx$ is immediately integrable whenever P can be divided into the sum of two functions, one of which is derived from the other.

14. Integrate

$$\int \frac{1 + x^2}{1 - x^2} \frac{dx}{\sqrt{1 + x^2 + x^4}}; \quad \int x^m \{(a^2 + x^2)^{\frac{1}{2}} + x\}^n dx$$

$$\int \cos^3 \theta \sin 2\theta \, d\theta; \quad \int \frac{dx}{x^{\frac{1}{2}} (1 + x^2)^{\frac{5}{4}}}$$

15. Integrate

$$\int \frac{dx}{1 - x^3}; \quad \int \frac{dx}{(1 + x^2) \tan^{-1} x}; \quad \int e^{ax} \sin mx \, dx.$$

CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS.

GREEK.

THURSDAY, SEPTEMBER 15TH:—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, M.A., LL.D.

1. Translate:—(A) Herodotus, Bk. VII., chaps. 5 and 46.

2. (*a*) Give an account of the dialect used by Herodotus, and turn the following words into the common dialect:—*ὦν, ποιέει, ἑωυτοῦ, ἀπίκατο, ὅτεῳ, ἀληθέι, πλώοντας, τριηχέως, θύρῃσι. νῆας, πείθεο, πλεῦνες, οἰκός.* (*b*) Comment on the constructions *λόγου εἶχετο. μὴ οὐ δοῦναι. λόγος σε ἔχῃ. εἰσηλθέ με κατοικτεῖραι.* What other case might have been used, and why? (*c*) Parse and give the literal meaning of the following words:—*κεχαραγμένον, ἐδονέετο, προσωρέγοντο, ἀνάρτημαι, ἐμπαλασσόμενοι.*

3. Translate:—(B) Thucidides, Book VI., Chap. 34, down to *κατ' ὀλίγον προςπίπτουσα. διὰ φόβου εἰσί*:—Comment on and illustrate this use of *διά*. Explain the force of *ἐς* in *ἀπαντήσαι Ἀθηναίοις ἐς Τάραντα*, and also *περὶ* in *περὶ τῇ Σικελίᾳ ἢ τοῦ ἐκείνους περαιωθῆναι.*

4. Translate:—Demosthenes, The Olynthiacs:—

(C) *Ἆρα λογίζεταί τις ὑμῶν, ὦ ἄνδρες Ἀθηναῖοι, καὶ θεωρεῖ τὸν τρόπον δι' ὃν μέγας γέγονεν ἀσθενὴς ὢν τὸ κατ' ἀρχὰς Φίλιππος; τὸ πρῶτον Ἀμφίπολιν λαβὼν, μετὰ ταῦτα Πύδναν, πάλιν Ποτίδαιαν, Μεθώνην αὖθις, εἶτα Θετταλίας ἐπέβη· μετὰ ταῦτα Φερὰς, Παγασὰς, Μαγνησίαν, πάνθ' ὃν ἐβούλετο εὐτρεπίσας τρόπον ὅτινα χρὴ εἰς Θρᾴκην. εἶτ' ἐκεῖ τοὺς μὲν ἐκβαλὼν, τοὺς δὲ καταστήσας τῶν βασιλέων ἠσθένησε. πάλιν ῥαίσας οὐκ ἐπὶ τὸ ῥᾳθυμεῖν ἀπέκλινεν ἀλλ' εὐθὺς Ὀλυνθίοις ἐπεχείρησεν. τὰς δ' ἐπ' Ἰλλυριοὺς καὶ Παίονας αὐτοῦ καὶ πρὸς Ἀρύββαν καὶ ὅποι τις ἂν εἴποι πραραλείπω στρατείας.*

(D) *Ἐγὼ γὰρ ὦ ἄνδρες Ἀθηναῖοι, σφόδρ' ἂν ἡγούμην καὶ αὐτὸς φοβερὸν τὸν Φίλιππον καὶ θαυμαστὸν, εἰ τὰ δίκαια πράττοντα ἑώρων ηὐξημένον· νῦν δὲ θεωρῶν καὶ σκοπῶν εὑρίσκω τὴν μὲν ἡμετέραν εὐήθειαν τὸ κατ' ἀρχὰς, ὅτε Ὀλυνθίους ἀπήλαυνόν τινες ἐνθένδε βουλομένους ὑμῖν διαλεχθῆναι, τῷ τὴν Ἀμφίπολιν φάσκειν παραδώσειν καὶ τὸ θρυλούμενόν ποτε ἀπόρρητον ἐκεῖνο κατασκευάσαι, τούτῳ προσαγαγόμενον, τὴν δ' Ὀλυνθίων φιλίαν μετὰ ταῦτα τῷ Ποτίδαιαν οὖσαν ὑμετέραν ἐξελεῖν καὶ τοὺς μὲν πρότερον συμμάχους ὑμᾶς ἀδικῆσαι, παραδοῦναι δ' ἐκείνοις, Θετταλοὺς δὲ νῦν τὰ τελευταῖα τῷ Μαγνησίαν παραδώσειν ὑποσχέσθαι καὶ τὸν Φωκικὸν πόλεμον πολεμήσειν ὑπὲρ αὐτῶν ἀναδέξασθαι. ὅλως δ' οὐδεὶς ἔστιν ὁντιν' οὐ πεφενάκικεν ἐκεῖνος τῶν αὐτῷ χρησαμένων· τὴν γὰρ ἑκάστων ἀνοιαν ἀεὶ τῶν ἀγνοούντων αὐτὸν ἐξαπατῶν καὶ προσλαμβάνων οὕτως ηὐξήθη.*

5. (*a*) Explain the term *Olynthiacs*. (*b*) When and with what political object were these orations delivered? (*c*) Explain the geographical references of Ext. (C). (*d*) Explain :—*τὰ θεωρικά. λειτουργίαι. ψήφισμα. προβούλευμα.* (*e*) *ἠνώχλει* :—parse and explain this form. (*f*) Point out and explain metaphorical phrases used by Demosthenes in these Orations.

6. Translate :—(E) Xenophon, Memorabilia, Bk. I. :—

Λέξω δὲ πρῶτον, ἃ ποτε αὐτοῦ ἤκουσα περὶ τοῦ δαιμονίου διαλεγόμενου πρὸς τὸν Μικρὸν ἐπικαλουμενον. Καταμαθὼν γὰρ αὐτὸν οὔτε θύοντα τοῖς θεοῖς, οὔτ' εὐχόμενον οὔτε μαντικῇ χρώμενον, ἀλλὰ καὶ τῶν ποιούντων ταῦτα καταγελῶντα. Εἰπέ μοι, ἔφη, ὦ Ἀριστόδημε, ἔστιν οὕστινας ἀνθρώπων τεθαύμακας ἐπὶ σοφίᾳ ;—Ἔγωγ', ἔφη.—Καὶ ὅς, λέξον ἡμῖν, ἔφη, τὰ ὀνόματα αὐτῶν.—Ἐπὶ μὲν τοίνυν ἐπῶν ποιήσει Ὅμηρον ἔγωγε μάλιστα τεθαύμακα, ἐπὶ δὲ διθυράμβῳ Μελανιππίδην, ἐπὶ δὲ τραγῳδίᾳ, ἐπὶ δὲ ἀνδριαντοποιίᾳ Πολύκλειτον, ἐπὶ δὲ ζωγραφίᾳ Ζεῦξιν. Πότερά σοι δοκοῦσιν οἱ ἀπεργαζόμενοι εἴδωλα ἄφρονά τε καὶ ἀκίνητα ἀξιοθαυμαστότεροι εἶναι, ἢ οἱ ζῶα ἔρφρονά τε καὶ ἐνεργά ;—Πολὺ, νὴ Δία, οἱ ζῶα, εἴπερ γε μὴ τύχῃ τινὶ, ἀλλὰ ὑπὸ γνώμης ταυτα γεγένηται. Τῶν δὲ ἀτεκμάρτως ἐχόντων ὅτου ἕνεκά ἐστι, καὶ τῶν φανερῶς ἐπ' ὠφελείᾳ ὄντων, πότερα τύχης καὶ πότερα γνώμης ἔργα κρίνεις ;—Πρέπει μὲν τὰ ἐπ' ὠφελείᾳ γενόμενα γνώμης εἶναι ἔργα. Οὐκοῦν δοκεῖ σοι ὁ ἐξ ἀρχῆς ποιῶν ἀνθρώπους ἐπ' ὠφελείᾳ προσθεῖναι αὐτοῖς δι' ὧν αἰσθάνονται ἕκαστα, ὀφθαλμοὺς μὲν, ὡσθ' ὁρᾶτὰ ὁρατὰ, ὦτα δὲ, ὡσθ' ἀκούειν τὰ ἀκουστά ; ὀσμῶν γε μὴν, εἰ μὴ ῥῖνες προσετέθησαν, τί ἂν ἡμῖν ὄφελος ἦν ; τίς δ' ἂν αἴσθησις ἦν γλυκέων καὶ δριμέων καὶ παντων τῶν διὰ στόματος ἡδέων, εἰ μὴ γλῶττα τούτων γνώμων ἐνειργάσθη.

7. (*a*) Write short explanatory notes (syntactical) on :—(1) *αὐτοῦ ἤκουσα.* (2) *αὐτὸν θύοντα.* (3) *μαντικῃ.* (4) *ἔστιν, οὕστινας ἀνθρώπων* ; (5) *τῶν ποιούντων ταῦτα.* (*b*) Give as accurately as you can the import of the prepositions with their several cases in ext. (E).

8. Translate :—(F) Plato, Apology ; and (G) Crito :—

(F) *Περὶ μὲν οὖν ὧν οἱ πρῶτοί μου κατήγοροι κατηγορουν αὖτη ἔστω ἱκανὴ ἀπολογία προς ὑμᾶς· πρὸς δὲ Μέλητον τὸν ἀγαθόν τε καὶ φιλόπολιν, ὡς φησι, καὶ τοὺς ὑστέρους μετὰ ταῦτα πειράσομαι ἀπολογεῖσθαι. αὖθις γὰρ δὴ ὥσπερ ἑτέρων τούτων ὄντων κατηγόρων, λάβωμεν αὐ τὴν τούτων ἀντωμοσίαν. ἔχει δέ πως ὧδε· Σωκράτη φησὶν ἀδικεῖν τοὺς τε νέους διαφθείροντα καὶ θεοὺς οὓς ἡ πόλις νομίζει οὐ νομίζοντα, ἕτερα δὲ δαιμόνια καινὰ. τὸ μὲν δὴ ἔγκλημα τοιοῦτόν ἐστι· τούτου δὲ τοῦ ἐγκλήματος ἓν ἕκαστον ἐξετάσωμεν. Φησὶ γὰρ δὴ τοὺς νέους ἀδικεῖν με διαφθείροντα. ἐγὼ δέ γε, ὦ ἄνδρες Ἀθηναῖοι, ἀδικεῖν φημι Μέλητον, ὅτι σπουδῇ χαιεντίζεται, ῥᾳδίως εἰς ἀγῶνας καθιστὰς ἀνθρώπους, περὶ πραγμάτων προσποιούμενος σπουδάζειν καὶ κήδεσθαι, ὧν οὐδὲν τούτῳ πώποτε ἐμέλησεν. ὡς δὲ τοῦτο οὕτως ἔχει, πειράσομαι καὶ ὑμῖν ἐπιδεῖξαι.*

(G) Σκόπει γὰρ δή, ταῦτα παραβὰς καὶ ἐξαμαρτών τι τούτων τί ἀγαθὸν ἐργάσει σαυτόν, ἢ τοὺς ἐπιτηδείους τοὺς σαυτοῦ· ὅτι μὲν γὰρ κινδυνεύσουσί γέ σου οἱ ἐπιτήδειοι καὶ αὐτοὶ φεύγειν καὶ στερηθῆναι τῆς πόλεως, ἢ τὴν οὐσίαν ἀπολέσαι, σχεδόν τι δῆλον· αὐτὸς δὲ πρῶτον μὲν ἐὰν εἰς τῶν ἐγγύτατά τινα πόλεων ἔλθῃς, ἢ Θήβαζε ἢ Μεγαράδε,—εὐνομοῦνται γὰρ ἀμφότεραι—πολέμιος ἥξεις, ὦ Σώκρατες, τῇ τούτων πολιτείᾳ, καὶ ὅσοιπερ κήδονται τῶν αὐτῶν πόλεων, ὑποβλέψονταί σε διαφθορέα ἡγούμενοι τῶν νόμων, καὶ βεβαιώσεις τοῖς δικασταῖς τὴν δόξαν, ὥστε δοκεῖν ὀρθῶς τὴν δίκην δικάσαι· ὅστις γὰρ νόμων διαφθορεύς ἐστι, σφόδρα που δόξειεν ἂν νέων γε καὶ ἀνοήτων ἀνθρώπων διαφθορεὺς εἶναι. πότερον οὖν φεύξει τάς τε εὐνομουμένας πόλεις καὶ τῶν ἀνδρῶν τοὺς κοσμιωτάτους; καὶ τοῦτο ποιοῦντι ἆρα ἀξιόν σοι ζῆν ἔσται; ἢ πλησιάσεις τούτοις καὶ ἀναισχυντήσεις διαλεγόμενος—τίνας λόγους, ὦ Σώκρατες; ἢ οὕσπερ ἐνθάδε, ὡς ἡ ἀρετὴ καὶ ἡ δικαιοσύνη πλείστου ἄξιον τοῖς ἀνθρώποις καὶ τὰ νομιμα καὶ οἱ νόμοι; καὶ οὐκ οἴει ἀσχημον ἂν φανεῖσθαι τὸ τοῦ Σωκράτους πρᾶγμα; οἴεσθαί γε χρή.

9. Write short biographical sketches of Socrates, Plato, and Xenophon.

10. (*a*) Distinguish between :—*οἱ σοφοὶ ἄνθρωποι, σοφοὶ οἱ ἄνθρωποι*, and *οἱ σοφοὶ τῶν ανθρώπων*. *ὁ οὐ πιστεύων* and *ὁ μὴ πιστεύων*. *ἔβησα* and *ἔβην*· *ἔστησα* and *ἔστην*. *ἔφυσα* and *ἔφυν*. *πέπεικα* and *πέποιθα*. *δουλεύω* and *δουλόω*. *ὅλωλεκα* and *ὅλωλα*. (*b*) Give the various meanings, according to their accent, of :—*εἰμι, τιμησαι, νεων, οικοι, σιγα, βιος*.

LATIN.

FRIDAY, SEPTEMBER 16TH :—MORNING, 9 TO 12.

Examiner,..... .... A. JUDSON EATON, PH.D.

1. Translate, (*a*) Livy, Bk. XXI, 60, *Dum haec.....rem gerere;* (*b*) Bk. XXII, 29, Tum Fabius .....*ab Fabio victum*.

2. (*a*) *Pyrenaeos montes circumvectus; Emporias appulisset; Romanae dicionis fecit: ad regionis eius praesidium:* remark on the grammatical construction of these phrases. (*b*) Derive *iurgo* and *ostendo* (Ext. b). Explain the dative in *receptui cecinit*.

3. Translate, Horace, Epistles, Bk. I, Ep. 11, vss. 20-30.

4. (*a*) Explain the figure *ὀξύμωρον*, and give an example from the last extract. (*b*) Write explanatory notes on the following expressions : (1) *qua mihi fortunam* (Ep. 5, v. 12), (2) *impositus mannis* (Ep. 7, 77), (3) *leges iuraque* (16, 41), (4) *locus est et pluribus umbris*, (5) *caerite cera digni*, (6) *inbelle Tarentum*, (7) *dente Theonino*.

5. Give the meaning and derivation of *Camena, antiquus, personet, depromere, examen, fidicen, sodes, peregrinae.*

6. Translate, Virgil, Georgics, Bk. I., vss. 204-215.

7. (*a*) What was the date of the composition of the Georgics, and at whose request were they written? What of their literary merit? (*b*) *nonne vides...ut...mittit:* why is *mittit* in the *indicative?* (*c*) *esset:* give the fuller form. (*d*) Who is the 'Eleusinian mother' mentioned in line 163? (*e*) Give the meaning and derivation of *tribulus* (or *tribolus*) and *tribulum*, and an English derivation from the latter. (*f*) Scan line 279, and remark upon the rhythm of lines 281-3.

8. Translate: Terence, Adelphi:—

DE. Quid autem? SY. Adortus iurgiost fratrem apud forum
De psaltria istac. DE. Ain uero? SY. Ah, nil reticuit.
Nam ut numerabatur forte argentum, interuenit
Homo de inprouiso: coepit clamare 'o Aeschine,
Haecine flagitia facere te! haec te admittere
Indigna genere nostro!' DE. Oh, lacrumo gaudio.
SY. 'Non tu hoc argentum perdis, sed uitam tuam.'
DE. Saluos sit: spero, est similis maiorum suom. SY. Hui.
DE. Syre, praeceptorum plenust istorum ille. SY. Phy:
Domi habuit unde disceret. DE. Fit sedulo:
Nil praetermitto: consuefacio: denique
Inspicere tanquam in speculum in uitas omnium
Iubeo atque ex aliis sumere exemplum sibi.
'Hoc facito.' SY. Recte sane. DE. 'Hoc fugito.' SY. Callide.

9. Describe the metre in which the last extract is written.

10. Construe and explain the syntax of: (*a*) In oro est omni populo. (*b*) Haec si neque ego neque tu fecimus. (*c*) Id laudi ducis quod fecisti inopia. (*d*) Ei mihi ne corrumpantur cautio est. (*e*) Ut cum opus sit ne in mora nobis siet. (*f*) Discrucior animi; animo male est.

11. Give the uncontracted forms of *sis, exporge, demsi, produxe, cedo* (imper.), *lautum, ciit, norimus, scisse.*

12. Translate, Cicero, Select Letters:

M. CICERO S. D. P. DOLABELLA.

Non sum ausus Salvio nostro nihil ad te litterarum dare; nec mehercule habebam, quid scriberem, nisi te a me mirabiliter amari; de quo etiam nihil scribente me te non dubitare certo scio. Omnino mihi magis litterae sunt exspectandae a te quam a me tibi; nihil enim Romae geritur, quod te putem scire curare, nisi forte scire vis me inter Niciam nostrum et

Vidium iudicem esse. Profert alter, opinor, duobus versiculis expensum Niciae; alter Aristarchus hos ὀβελίζει. Ego tamquam criticus antiquus iudicaturus sum, utrum sint τοῦ ποιητοῦ an παρεμβεβλημεναι. Puto et nunc dicere: 'Oblitusne es igitur fungorum illorum, quos apud Niciam? et argentium squillarum cum sepia Septimiae? Quid ergo? tu adeo mihi excussam severitatem veterem putas, ut ne in foro quidem reliquiae pristinae frontis adpareant? Sed tamen suavissimum συμβιωτὴν nostrum praestabo integellum, nec committam ui si ego eum condemnaro, tu restituas, ne habeat Bursa Plancus, apud quem litteras discat. Sed quid ago? cum mihi sit incertum, tranquillone sis animo an tu in bello in aliqua maiuscula cura negotiove versere, labor longius: cum igitur mihi erit exploratum te libenter esse risurum, scribam ad te pluribus. Te tamen hoc scire volo, vehementer populum sollicitum fuisse de P. Sullae morte, ante quam certum scierit; nunc quaerere desierunt, quo modo perierit; satis putant se scire, quod sciunt: ego ceteroqui animo aequo fero; unum vereor, ne hasta Caesaris refrixerit

13. (*a*) Write brief explanatory notes on the following names or terms: *Dolabella; Nicias*; *Aristarchus*; *obelus, hasta.* (*b*) Explain the mood and tense, and write down the principal parts of, *scierit, desierunt, perierit, refrixerit.*

GREEK AND LATIN PROSE COMPOSITION.

MONDAY, SEPTEMBER 14TH:—AFTERNOON, 2 TO 5.

Examiners, ... { REV. GEORGE CORNISH, M.A., LL.D. / A. JUDSON EATON, Ph.D.

(A) Translate into Greek:—

1. Pythagoras used to say that these two excellent things had been given by the gods to men,—speaking truth and doing good. 2. The King hoped that the Athenians would come out against him and not suffer their land to be laid waste. 3. Gelon, after having conquered the Carthaginians at Himera, brought the whole of Sicily under his sway. 4. So long as Pericles was their leader, the Athenians performed many noble achievements. 5. The general happened to be present; had he not, the heavy-armed infantry of the enemy would have entered the town without being discovered. 6. Having said these things they took their departure; when this had been said they took their departure.

(B) Translate into Latin:—

At the end of July, B.C 218, the Carthaginian army arrived at the Rhone, where Hannibal found the further bank occupied by the armed Volcæ. All the other tribes he had bribed into submission. While rafts were being constructed for use on the spot and others collected from all

sides, Hanno, son of Bomilcar, with part of the army proceeded up the stream. When a suitable point was reached, they crossed the river in hastily constructed boats, with a view of taking the Gauls in the rear. On the following day the smoke-signals showed that they had succeeded in crossing; and seeing these, Hannibal gave the order to advance. While the Gauls were engaged in a terrible conflict on the shore, Hanno had taken their camp, and was now pressing them on their rear. Beset on either side with peril, they fled in confusion to their villages. Scipio, who had been despatched from Rome with sixty ships of war, encamped at the mouth of the Rhone, while a picked body of cavalry might reconnoitre the country. But finding that Hannibal was already too far ahead to be easily overtaken, he returned to Genua, to encounter Hannibal, on his descent from the Alps.

ANCIENT HISTORY.

TUESDAY, SEPTEMBER 15TH:—AFTERNOON, 2 TO 5.

Examiner,..... REV. GEORGE CORNISH, LL.D.

1. (*a*) Write a geographical description of Eubœa. (*b*) Derive and explain the terms *Euripus*, *Chersonesus*, *Cyclades*, *Sporades*. (*c*) Name the islands on the west of Greece, giving modern names of any.

2. A short account of the earliest inhabitants of Greece, with the supposed genealogy of the four great divisions of the Greek race.

3. (*a*) Write an account of the colonies, trade and commerce of the Phœnicians. (*b*) In what ways was their influence upon the Greek States felt?

4. Sketch the rise and progress of the Persian empire, naming the four Greek writers that are authorities on Persian History.

5. Give a short account, with dates, of the public events in which the following persons played an important part, severally:—(1) Peisistratus; (2) Mardonius; (3) Pericles; (4) Thrasybulus.

6. When and on what grounds did Rome first interfere in Grecian affairs?

7. (*a*) Write a short account of the reforms of Servius Tullius. (*b*) Give the names of the Roman kings in chronological order, and mention those that were of foreign extraction.

8. Give the dates of the following measures, and in each case state the advantages gained by the Plebs or the chief enactments of the measure:—(*a*) The Decemviral legislation. (*b*) The Valerian laws. (*c*) The Licinian laws. (*d*) The Lex Hortensia.

9. Give (by map or verbal description) the geographical position of the following places, and state very briefly with what events they were connected.—Allia, Ægates, Zama, Metaurus, Caudine Forks, Saguntum, Agrigentum, Capua.

10. Write an account of the war with Pyrrhus.

11. Over what nations did the Roman sway extend at the close of the second Punic war.

ENGLISH LITERATURE.

MILTON: *Paradise Lost*, Bks, I and II. SHAKSPERE, *Tempest*.

MONDAY, SEPTEMBER 19TH :—MORNING, 9 TO 12.

Examiners, ... { CHAS. E. MOYSE, B.A. / PAUL T. LAFLEUR, M.A.

(*Write the answers to A and B on separate sets of papers.*)

A.

1. Sketch or quote from Paradise Lost a striking description of (*a*) a supernatural being, (*b*) sudden movement, (*c*) applause, (*d*) combat.

2. Briefly illustrate from Books I and II of Paradise Lost, without using the answer to the previous question, Milton's use of simile and metaphor, and give the context of each illustration or its substance.

3. Give the substance of the Invocation and the Introduction up to the beginning of Satan's first speech.

4. Describe

(*a*) The raising of the standard.

(*b*) The building of Pandemonium.

5. Write on the qualities of Milton as a descriptive poet, and introduce into your estimate some notice of his style and vocabulary.

B.

1. What are the probable sources of *The Tempest*, as agreed on by leading critics? At about what period in Shakespere's life is it supposed to have been written? Give reasons supporting your statements.

2. Give some account of the character of Caliban and of Miranda, quoting from the text, here and there, in justification of your opinions.

3. Summarise the events told in Act III.

4. Explain :—forthrights and meanders, an excellent pass of pate, thou debosh'd fish, slit his weazand, pied ninny.

5. Quote Gonzalo's description of an ideal commonwealth, and name the source whence the notion was borrowed. Give the names of any three well-known works, in any literature, treating of the same subject.

ENGLISH LITERATURE.

SPALDING (*in part*). TRENCH, *On the Study of Words*.

MONDAY, SEPTEMBER 19TH :—AFTERNOON, 2 TO 5.

Examiners,..... .... { CHAS. E. MOYSE, B.A. / PAUL T. LAFLEUR, M.A.

(*Write the answers to A and B on separate sets of paper.*)

A.

1. What is meant by saying that the English drama is irregular?

2. Criticise Marlowe and Ben Jonson as dramatists, and give their approximate dates.

3. Show that Spenser was influenced by Italian literature. Point out English marks in the *Faerie Queene*.

4. By whom was the term *metaphysical* applied to certain poets? Mention two of the poets in question and state the nature of their poetry.

5. State by whom the following works were written, and give a criticism of the first four :—Essay of Dramatic Poesy, Hudibras, Absalom and Achitophel, Essay on Man, Lives of the Poets.

6. Notice the leading historians of the eighteenth century.

7. Write on the prose essayists of the eighteenth century, and on the reviewers of the first quarter of the nineteenth.

8. Notice the literature in the last age of the eighteenth century which especially defended religion "against the attacks of avowed infidels."

B.

The paper on Trench is the same as that set for the Second Year Exhibitions.

ENGLISH COMPOSITION.

TUESDAY, SEPTEMBER 20TH: —AFTERNOON, 2 TO 5.

Examiners,..... ..... { CHAS. E. MOYSE, B.A. / P. T. LAFLEUR, M.A.

1. Give some idea of the difference between the diction of Prose and that of Poetry.

2. What are the reasons for observing simplicity of style on ordinary occasions? Give contrasting examples.

3. Explain:—Metaphor, Antithesis, Tautology; give examples.

4. Write an essay of not less than two pages on any *one* of the following subjects:—

a. Municipal government.

b. Mens sana in corpore sano.

c. Habit.

FRENCH.

Examiners, ... { P. J. DAREY, M.A., LL.D. / REV. J. L. MORIN, M.A.

1. Traduisez:

Quoi! tu ne vois donc pas jusqu'où l'on me ravale,
Albine? C'est à moi qu'on donne une rivale,
Bientôt, si je ne romps ce funeste lien,
Ma place est occupée et je ne suis plus rien.
Jusqu'ici d'un vain titre Octavie honorée,
Inutile à la cour en était ignorée:
Les grâces, les honneurs, par moi seule versés,
M'attiraient des mortels les vœux intéressés,
Une autre de César a surpris la tendresse:
Elle aura le pouvoir d'épouse et de maîtresse;
Les fruits de tant de soins, la pompe des Césars
Tour deviendra le prix d'un seul de ses regards.
Que dis-je? l'on m'évite et déjà délaissée.....
Ah! je ne puis, Albine, en souffrir la pensée.
Quand je devrais du ciel en hâter l'arrêt fatal,
Néron, l'ingrat Néron.....mais voici son rival.

2. (*a*) Qui était Britannicus? (*b*) Quelle parenté y avait-il entre lui et Néron, Octavie, Agrippine? (*c*) Quel droit avait-il à être empereur? (*d*) Quel auteur célèbre Racine a-t-il suivi dans la composition de cette tragédie?

3. Faites connaître les caractères de Burrhus et de Narcisse.

4. (*a*) Quel ridicule Molière attaque-t-il dans *Les Femmes savantes*, (*b*) et dans quelles autres comédies avait-il déjà attaqué le même ridicule?

5. Traduisez les expressions et l'extrait pris des *Femmes savantes*.

(*a*) Aller terre à terre. Bien vous prend. C'est bien fait à vous. Voilà qui va des mieux. Haut la main. Si fait. Viande creuse. Il pue étrangement son ancienneté. Collet monté. Sens dessus dessous. Mettre hors de page. Si j'étais que de vous. De ce pas.

(*b*) C'est prendre un soin pour moi qui n'est pas nécessaire,
Les doctes entretiens ne sont pas mon affaire ;
J'aime à vivre aisément ; et dans tout ce qu'on dit,
Il faut se trop peiner pour avoir de l'esprit ;
C'est une ambition que je n'ai point en tête ;
Je me trouve fort bien, ma mère, d'être bête ;
Et j'aime mieux n'avoir que de communs propos,
Que de me tourmenter pour dire de beaux mots.

6. Décrivez les rôles de *Bélise* et de *Clitandre*.

7. Qu'entendez-vous par la *Pléiade*, le *Roman de la Rose*, le *Quart d'Heure de Rabelais*, l'*Hôtel de Rambouillet*, l'*Académie Française*, la *Satire Ménippée*?

8. (*a*) Racontez l'origine du théâtre en France. (*b*) Qui a écrit le *Discours de la Méthode*, l'*Institution de la religion chrétienne*, l'*Esprit des Lois*, *Emile*, *Gil Blas*, *Discours sur l'Histoire Universelle*. (*c*) Indiquez l'époque où ces auteurs ont vécu.

9. (*a*) Avec quels verbes omet-on la négation *pas*?

(*b*) Quelles sont les règles de l'accord des participes passés placés devant un infinitif?

(*c*) Expliquez l'emploi du subjonctif dans les phrases suivantes :

Je veux que vous écriviez. Pensez-vous qu'ils eussent mieux réussi que vous? Je ne croirai jamais qu'il fasse cela.

10. Traduisez en français :

Being now resolved to be a poet, I saw every thing with a new purpose ; my sphere of attention was suddenly magnified ; no kind of knowledge was to be overlooked. I ranged the mountains and deserts for images and resemblances, and pictured upon my mind every tree of the forest, and flower of the valley.....To a poet nothing can be useless. Whatever is beautiful and whatever is dreadful must be familiar to his imagination. He must be conversant with all that is awfully vast or elegantly little.

GERMAN.

TUESDAY, SEPTEMBER 20TH :—MORNING, 9 TO 12.

Examiner..... .....LEIGH P. GREGOR, B.A.

1. Translate: Der Oberſtlieutenant, mit dem du die Schlägerei gehabt haſt, iſt nicht tot. Er hat an meinen Freund Lianeour ſchreiben l a ſſ e n , er läßt dir vollkommene Gerechtigkeit widerfahren, und bekennt, daß er der Angreifer g e w e ſ e n ſei. Die Familie hat zwar ſchon angefangen, dich gerichtlich zu verfolgen; aber wir w o l l e n alles anwenden, die Sache bei Zeiten zu u n t e r d r ü c k e n. Ich habe mich losgemacht, dir dieſe gute Nachricht zu überbringen, und m u ß gleich wieder zu meiner Geſellſchaft.

2. Parse carefully the words italicised in the preceding passage.

3. Translate: Die ganze Nation war ihnen mit einer enthuſiaſtiſchen Ergebenheit zugethan, die durch ihr unglückliches Schickſal nicht wenig vermehrt ward. Auch der ſtreng katholiſche Theil gönnte dem Herzog den Triumph nicht, zwei ſo wichtige Männer zu unterdrücken.

4. Translate:

So ſingend, tanzen ſie den Reigen
Und Stille, wie des Todes Schweigen
Liegt überm ganzen Hauſe ſchwer,
Als ob die Gottheit nahe wär'.
Und feierlich, nach alter Sitte,
Umwandelnd des Theaters Rund,
Mit langſam abgemeſſnem Schritte,
Verſchwinden ſie im Hintergrund.

5. (*a*) What classes of verbs take the auxiliary ſein?

(*b*) Compare: groß, hoch, nah, gut, viel.

6. Decline throughout der katholiſche Theil. Decline eine ſtarke Probe in singular only.

7. Translate:

In what year did the Queen appoint (ernennen zu) the Earl

of Dufferin Governor of Canada? The children loved my uncle, because he never grew tired of telling them nice (ſchön) stories. Charles has already finished (fertig ſein mit) learning his lesson; he is cleverer than I thought. In the year eighteen hundred and eighty-seven Queen Victoria celebrated the fiftieth year of her reign. An ass met a hungry wolf. Have compassion on me (Mitleid haben mit), said the trembling ass: I am a poor sick animal, just (nur) look what a thorn I have run (treten) into my foot.

NATURAL SCIENCE SCHOLARSHIPS.

BOTANY.

(FIRST PAPER.)

FRIDAY, SEPTEMBER 16TH:—9 TO 12 A.M.

Examiner,.....D. P. PENHALLOW, B.Sc.

1. Give a concise account of the growth and duratio n of the bark of an exogen.

2. Explain the structure of an exogenous stem and show the origin of the vascular structure, comparing with an endogen.

3. Compare the embryonic development of a dicotyledenous angiosperm, a monocotyledenous angiosperm and a gymnosperm.

4. Give a concise account of the economy of the root system, and point out the leading differences in Spermaphytes, Pteridophytes and Bryophytes.

5. Give an account of the economic value of modified foliar organs as in Dionæa and Sarracenia, and in the fleshy leaves of Agave and the scales of bulbs.

6. Give proof of the morphological nature of stamens and pistils.

7. Outline the life history of a moss, as in Polytrichum.

8. Give a concise statement of the basis upon which modern systems of classification rest.

9. Explain the relative influence of cross and close fertilisation, and point out the special adaptations of anemophilous, and of dichogamous and dimorphic inflorescences. Examples.

10. Give a concise account of the structure, economic value and mode of growth of the pollen of a gymnosperm, and compare with the microspore of an Angiosperm and a Pteridophyte.

BOTANY.

(SECOND PAPER.)

FRIDAY, SEPT. 16TH :—2 TO 5 P.M.

Examiner,.....D. P. PENHALLOW, B.Sc.

1. Compare the genera Lycopodium and Selaginella.

2. Point out the essential differences between Filices and the Equisetaceæ.

3. Give the leading characteristics of the Rosaceæ, Compositæ, Saxifragaceæ, Dipsaceæ. Show in what essentials any of these families differ or resemble one another.

4. Outline the geographical distribution of Ericaceæ, Gramineæ, Liliaceæ and Coniferæ.

5. Give the leading characteristics of the families Labiatæ, Scrophulariaceæ, Ericaceæ and Berberidaceæ.

6. State the economic applications of the following genera : Acer, Pinus Tsuga and Quercus, and enumerate as far as possible the valuable species represented in the Canadian flora.

7. Enumerate the predominant families in (1) the spring flora and (2) the autumn flora about Montreal.

8. Give a statement of the economic genera of Berberidaceæ, Ericaceæ, Ranunculaceæ, and show for what they are useful.

9. State what economic value is possessed by the two groups of Bryophytes and Pteridophytes.

Examination of plants on Tuesday, Sept. 20, 9 to 12 a.m.

CHEMISTRY.

MONDAY, SEPT. 19TH :—AFTERNOON, 2 TO 5.

Examiner.....B. J. HARRINGTON, B.A., PH.D.

1. How many litres of Ammonia measured at 10° and under a pressure of 750 mm. can be obtained from 100 grams of Sal-ammoniac?

2. State what you know with regard to the elements Selenium and Tellurium.

3. Explain by means of graphic formulæ the constitution of the Oxy-acids of Phosphorus.

4. Describe briefly the preparation of each of the following bodies :—(*a* Nitrous Oxide, (*b*) Carbon Monoxide, (*c*) Methane, (*d*) Ethylene.

5. Into what classes may salts be divided? Give examples of each.

6. State what you know with regard to the Oxides and principal Salts of Lead.

7. Explain each of the following terms :—isomerism, organic radical, saturated compound, substitution product, addition product.

8. Explain the meaning of the terms primary, secondary and tertiary as applied (1) to Alcohols, (2) to Amines.

9. Calculate the volumes at 0° and 760 mm. of Nitrogen and Carbon Dioxide obtained by the combustion of 100 grams of Aniline.

10. Give briefly the preparation and properties of (*a*) Oxalic Acid, (*b*) Tartaric Acid, (*c*) Dextrin, (*d*) Phenol, (*e*) Acetaldehyde.

LOGIC.

MONDAY, 19TH SEPT. :—MORNING, 9 TO 12.

Examiners ..... { J. CLARK MURRAY, LL.D. / P. T. LAFLEUR, M.A.

1. Distinguish carefully between Logic as an Art, and Logic as a Science.

2. Mention the chief sources of ambiguity in names, and discuss fully any one. Give examples.

3. Explain with examples: Privative Names, Relative Names, Simple Conversion.

4. Employ the Eulerian diagrams for propositions in A and O.

5. Give the contrary and the contradictory of :—

(*a*) No man is a hero to his valet.

(*b*) None but the wise are truly virtuous.

(*c*) Metals are all good conductors of heat.

(*d*) A stitch in time saves nine.

6. Prove the Canon which says that "the middle term must be distributed at least once in the premises."

7. Construct a syllogism (*not* with symbols) in Datisi, and one in Camestres; and reduce them.

8. Classify the fallacies of Irrelevant Conclusion, and discuss with an example any one of them.

9. Test the following:—

(*a*) Who spareth the rod, hateth his child; the parent therefore who loveth his child spareth not the rod.

(*b*) Warm countries alone produce wine; Spain is a warm country and therefore produces wine.

(*c*) The more correct the Logic, the more certainly the conclusion will be wrong if the premises are false; therefore when the premises are wholly uncertain the best logician is the least safe guide.

10. Make notes on the exact meaning and use of:—Phenomenon, Analogy, Empirical knowledge, Scientific explanation, Hypothesis.

11. Lay down, in outline, the chief requisites of a philosophical language.

12. Distinguish between Deduction as synthesis, and Induction as analysis.

FACULTY OF APPLIED SCIENCE.

ENTRANCE EXAMINATIONS,

1892.

FACULTY OF APPLIED SCIENCE.

ENTRANCE EXAMINATIONS.

1892.

FACULTY OF APPLIED SCIENCE.

(For Papers in English and French see Faculty of Arts.)

MATRICULATION EXAMINATION.

MATHEMATICS (*First Paper*).

FRIDAY, SEPTEMBER 16TH:—MORNING, 9 TO 12.

Examiner.....G. H. CHANDLER, M.A.

ARITHMETIC.

1. Give the number of grains in a pound avoirdupois, also the number of grains in a pound Troy; and hence express the latter as a decimal of the former.

2. If the printing of a book of 500 pages, each page containing 30 lines 4 inches long, cost $200, what should be the cost of a book of 400 pages, each page consisting of 35 lines $3\frac{3}{4}$ inches long?

3. In what time will the simple interest on $250 be the same as the compound interest on $200 for 5 years, the rate being 6 per cent. in each case?

4. Assuming the paper on which you are writing to be $8\frac{1}{4}$ by $13\frac{1}{4}$ inches, express the area in square centimetres. Also find one side of a square of the same area.

ALGEBRA.

5. Find the square root of

$$x^4 + 2x^3 - x + \tfrac{1}{4}$$

and of

$$16x^6 + 16x^7 - 4x^8 - 4x^9 + x^{10}.$$

6. Resolve into elementary factors:

(*a*) $x^2 - 23xy + 132y^2$,

(*b*) $x^2 - 14x - 51$,

(*c*) $12x^2 - 31x - 15$,

(*d*) $(x+y)^3 + (x-y)^3$,

(*e*) $2x^4 - x^3 + 4x - 2$.

7. Simplify

(1) $\left(\frac{2}{x} - \frac{1}{a+x} + \frac{1}{a-x}\right) \div \left(\frac{a+x}{a-x} - \frac{a-x}{a+x}\right)$,

(2) $\left\{x^3 - \frac{1}{x^3} - 3\left(x - \frac{1}{x}\right)\right\} \div \left(x - \frac{1}{x}\right)$.

8. Simplify $4\sqrt{63} + 5\sqrt{7} - 8\sqrt{28}$ and rationalize the denominator of

$$\frac{\sqrt{7} + \sqrt{2}}{9 + 2\sqrt{14}}.$$

9. Solve the equations:

(*a*) $(3x - 1)(2x - 7) = 6(x - 3)^2 + 7,$

(*b*) $\dfrac{x + 3}{2x - 7} - \dfrac{2x - 1}{x - 3} = 0,$

(*c*) $\begin{cases} \frac{1}{7}x + \frac{1}{5}y = 1\frac{3}{7}, \\ x + \frac{1}{3}y = 4\frac{2}{3}, \end{cases}$

(*d*) $\begin{cases} x^3 - y^3 = 208, \\ xy(x - y) = 48. \end{cases}$

10. When a certain number of two figures is multiplied by the left hand figure the result is 546; when the sum of the figures is multiplied by the same figure the result is 105; find the number.

N.B. It is necessary to pass in each subject. All the work must be shown; answers alone will not be accepted.

MATRICULATION EXAMINATION.

MATHEMATICS (*Second Paper*).

FRIDAY, SEPTEMBER 16TH :—AFTERNOON, 2 TO 5.

Examiner,.....G. H. CHANDLER, M.A.

GEOMETRY.

1. The opposite sides and angles of a parallelogram are equal, and each diagonal bisects the parallelogram.

a. If the diagonals of a parallelogram are equal, prove that the angles are all right angles.

2. The square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the other two sides.

a. Show how to describe a square which shall be equal to the difference of two given squares.

3. If a straight line be bisected and also divided into two unequal parts, the sum of the squares on the unequal parts shall be equal to twice the square on half the line, together with twice the square on the line between the points of section.

4. From a given point outside or on a circle to draw a tangent to the circle.

a. Describe a circle of given radius so as to touch two given lines.

5. From a given circle to cut off a segment which shall contain an angle equal to a given angle.

a. Through a given point outside a given circle to draw a line which shall cut off a segment containing an angle equal to a given angle.

TRIGONOMETRY.

6. Express the remaining trigonometrical ratios in terms of the tangent.

7. Express the ratios of $180^\circ - A$ and those of $180^\circ + A$ in terms of those of A.

8. Show that

(a) $\tan^2 A - \sin^2 A = \sin^4 A \sec^2 A$,

(b) $\sin (A + B) = \sin A \cos B + \cos A \sin B$,

(c) $\sin 2A = 2 \sin A \cos A$,

(d) $\dfrac{\sin 2A + \sin A}{\cos 2A + \cos A} = \tan \dfrac{3A}{2}$

MATRICULATION EXAMINATION.

GEOMETRICAL DRAWING.

Examiners, ... { C. H. McLeod, Ma.E.
C. A. Carus-Wilson, M.A.

1. A circle of one inch diameter rolls outside another circle of three inches diameter. Find the curve traced out by a point which moves with the smaller circle at a distance of two inches from its centre. One loop only to be drawn.

2. Give plan and elevation of a regular hexagon of one and a half inch side resting on one edge which makes 50° with the vertical, the plane of the hexagon being at 40° to the horizontal.

3. Give plan and elevation of ten points evenly spaced round a circle of two and a half inches diameter, the circle being inclined at 45° to the horizontal and having its horizontal diameter at 40° to the vertical.

4. A vertical cylinder of one and a half inches diameter is intersected by a second cylinder of the same diameter with its axis horizontal and inclined at 35° to the vertical. Show the elevation of half of the complete curve of intersection.

5. The long edge of a 45° set square (= 4″) is parallel to and $1\frac{1}{2}$″ from the horizontal, and inclined at 50° to the vertical. Give plan and elevation when the apex of the right angle is touching the horizontal.

6. Describe an ellipse whose major and minor axes are 5″ and 2″ long respectively, and draw a tangent to the curve at a point one inch from one end of the major axis.

BRITISH ASSOCIATION PRIZE.

MATHEMATICS.

FRIDAY, SEPTEMBER 16TH:—MORNING, 9 TO 12.

Examiner,..... G. H. CHANDLER, M.A.

1. Describe an isosceles triangle which shall have each base angle double of the vertical angle.

2. The volume of the frustum of a triangular pyramid

$$= \tfrac{1}{3} h (B + \sqrt{Bb} + b),$$

where h is the height, and B and b the areas of the parallel faces.

3. The area bounded by a parabola and one of its chords is $\frac{2}{3}$ of the area bounded by the chord and the tangents at its extremities.

4. Show that

(1) $\cos^2\theta + \sin^2\theta = 1$,

(2) $\cos^4\theta + \sin^4\theta = 1 - 2\cos^2\theta \sin^2\theta$,

(3) $\cos^6\theta + \sin^6\theta = 1 - 3\cos^2\theta \sin\theta$,

(4) $(\sec\theta - \tan\theta)^2 = (1 - \sin\theta) \div (1 + \sin\theta)$,

(5) $\cot A - \tan B = \dfrac{\cos(A + B)}{\sin A \cos B}$,

(6) $\dfrac{\sin A - \sin B}{\cos A - \cos B} = -\cot\left(\dfrac{A + B}{2}\right)$.

5. In any plane triangle

(1) $a^2 = b^2 + c^2 - 2bc\cos A$,

(2) $\cot\dfrac{A}{2}\cot\dfrac{B}{2} = \dfrac{a+b+c}{a+b-c}$.

6. In any spherical triangle

$$\cos a = \cos b \cos c + \sin b \sin c \cos A.$$

7. Simplify $\dfrac{\dfrac{a+b}{a-b}+\dfrac{a-b}{a+b}}{\dfrac{a-b}{a+b}-\dfrac{a+b}{a-b}} \times \dfrac{ab^3 - a^3b}{a^2+b^2}$,

and reduce $\dfrac{1+x^3}{1+2x+2x+x^3}$ to its lowest terms.

8. Find the square root of

$$25\,a^{\frac{4}{3}} + 16 - 30\,a - 24\,a^{\frac{1}{2}} + 49\,a^{\frac{2}{3}}.$$

9. Show that

$$1+\frac{1}{2}+\frac{1}{2^2}+\frac{1}{2^3}+\ldots \text{ to } n \text{ terms} = 2 - \frac{1}{2^{n-1}}.$$

10. Solve the equation $\dfrac{3x-1}{2x-1} - \dfrac{4x-2}{3x-1} = \dfrac{1}{6}$.

11. A force equal to the weight of one ounce acts on a pound of matter for 10 seconds, find the velocity and distance.

12. A uniform iron rail weighing 100 lbs. is supported by two posts 10 ft. apart, the posts being 12 and 8 ft. respectively from the ends of the rail. What are the pressures on the posts?

13. Define kinematics, kinetics, energy, conservation of energy, momentum, coefficient of friction, angle of repose.

14. The apparent weights of a body when weighed in the pans of a balance with unequal arms are W^1 and W_2; show that the true weight is $\sqrt{W_1\ W_2}$.

BRITISH ASSOCIATION PRIZE.

MACAULAY, Vol. I. SHAKESPERE, *Tempest.*

MONDAY, SEPT. 19TH

Examiners,..... { CHAS. E. MOYSE, B.A.
P. T. LAFLEUR, M.A.
W. J. MESSENGER, B.A.

(Write the answers to A and B on separate sets of papers.)

A. MACAULAY.

1. What does Macaulay say concerning

(*a*) The Danish invasions.

(*b*) The effects of the separation of England and Normandy.

(*c*) The peculiar character of the English aristocracy.

2. What arguments does Macaulay say might have been used by each of the two great parties at the reassembling of Parliament in 1641?

3. Describe Cromwell's attempts to form constitutional government.

4. Describe the protectorate of Richard Cromwell, and the causes which led to its overthrow.

B. *The Tempest.*

(The paper on the *Tempest* is the same as that set for the Third Year Scholarships in Arts.)

SCOTT EXHIBITION.

THIRD AND FOURTH YEARS.

MATHEMATICS.

FRIDAY, SEPTEMBER 16TH:—MORNING, 9 TO 12.

Examiner,.....G. H. CHANDLER, M.A.

1. The angular points of a triangle are (2, 1), (3, − 2), (− 4, − 1); show that the triangle is right angled.

2. Find the locus of a point which moves so that its distance from a fixed point is twice its distance from a fixed straight line.

3. What is represented by the equation $x' x + y' y = a^2$, (*i*) when (x', y') is on the circle $x^2 + y^2 = a^2$, (*ii*) when outside, (*iii*) when inside the circle.

4. Show that the straight line $\frac{x}{m} + \frac{y}{n} = 1$ will touch the ellipse

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1 \text{ if } \frac{a^2}{m^2} + \frac{b^2}{n^2} = 1.$$

5. Given $dx = \cos\phi\ ds$, $dy = \sin\phi\ ds$, show that

$$(d^2x)^2 + (d^2y)^2 = (d\phi\ ds)^2 + (d^2s)^2.$$

6. Prove that the radius of curvature at any point of the hypocycloid $x^{\frac{2}{3}} + y^{\frac{2}{3}} = a^{\frac{2}{3}}$ is equal to three times the perpendicular from the origin on the tangent.

7. Show that the minimum value of

$$a^2 \sec^2\theta + b^2 \operatorname{cosec}^2\theta$$

is $(a + b)^2$.

* 8. Find to 3 decimal places one root of the equation

$$e^x (1 + x^2) = 40.$$

9. Integrate (1) $\cos^2\theta\ d\theta$, (2) $\cos^3\theta\ d\theta$, (3) $\sqrt{2ax - x^2}\ (a - x)\ dx$ (4) $dx \sqrt{\frac{a - x}{a + x}}$.

† 10. By integrating by parts show that

$$\int x^2 \sin x\ dx = 2x \sin x + (2 - x^2) \cos x.$$

11. Define the hodograph of a point's motion, and show that the acceleration of the point is equal to the velocity in the hodograph.

12. A train of 100 tons exposed to a resistance of 8 lbs. a ton is driven with constant speed by an engine of 64 H.P., find the speed. If the steam is shut off and the train stopped in $\frac{1}{3}$ of a mile, show that the brake resistance is 30.5 lbs. per ton. (Take 1 ton = 2240 lbs.)

† 13. Find the moment of inertia of a square plate about a diagonal.

14. A stone of specific gravity s is dropped into a lake of depth h; show that it will reach the bottom in $\sqrt{\frac{2hs}{(s-1)g}}$ seconds.

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* For Third year only.
† For Fourth year only.

SCOTT EXHIBITION.

MACAULAY, Vol. I., Cap. 1. SCOTT, *Lady of the Lake.*

MONDAY, SEPT. 19TH.

Examiners, ... { CHAS. E. MOYSE, B.A.
P. T. LAFLEUR, M.A.
W. J. MESSENGER, B.A.

[Write the answers to A and B on separate sets of papers.]

A. MACAULAY.

1. What does Macaulay say concerning

(*a*) The Danish invasions.

(*b*) The effects of the separation of England and Normandy.

(*c*) The peculiar character of the English aristocracy.

2. What arguments does Macaulay say might have been used by each of the two great parties at the reassembling of Parliament in 1641 ?

3. Describe Cromwell's attempts to form constitutional government.

4 Describe the protectorate of Richard Cromwell, and the causes which led to its overthrow.

B. *The Lady of the Lake.*

1. Sketch or describe the relative positions of the chief localities in which the events of the poem take place.

2. Assign an event to each locality you have mentioned.

3. From the *Lady of the Lake* illustrate Scott's power as a poet when dealing with the following subjects :—

(*a*) A mountain peak.

(*b*) Feminine beauty.

(*c*) A mood of reflection.

(*d*) Motion in a landscape.

(*e*) Colour.

(*f*) Evening.

4. Write an Essay on the Highland element in the poem, and illustrate Celtic traditions and customs as you proceed.

FACULTY OF ARTS.

SESSIONAL EXAMINATIONS,

1893.

FACULTY OF ARTS.

SESSIONAL EXAMINATIONS,

1893.

FACULTY OF ARTS.

SESSIONAL EXAMINATIONS, 1893.

CLASSICS.

FIRST YEAR.

GREEK.—HOMER, ILIAD, BK. XXII.

WEDNESDAY, APRIL 5TH :—MORNING, 9 TO 12.

Examiner,.....A. JUDSON EATON, M.A., PH.D.

1. Translate :—

Πῶς δέ κεν Ἕκτωρ κῆρας ὑπεξέφυγεν θανάτοιο,
Εἰ μή οἱ πύματόν τε καὶ ὕστατον ἤντετ' Ἀπόλλων
Ἐγγύθεν, ὅς οἱ ἐπῶρσε μένος λαιψηρά τε γοῦνα ;
Λαοῖσιν δ' ἀνένευε καρήατι δῖος Ἀχιλλεύς,
Οὐδ' ἔα ἰέμεναι ἐπὶ Ἕκτορι πικρὰ βέλεμνα,
Μή τις κῦδος ἄροιτο βαλὼν, ὁ δὲ δεύτερος ἔλθοι.
Ἀλλ' ὅτε δὴ τὸ τέταρτον ἐπὶ κρουνοὺς ἀφίκοντο,
Καὶ τότε δὴ χρύσεια πατὴρ ἐτίταινε τάλαντα,
Ἐν δ' ἐτίθει δύο κῆρε τανηλεγέος θανάτοιο,
Τὴν μὲν Ἀχιλλῆος, τὴν δ' Ἕκτορος ἱπποδάμοιο,
Ἕλκε δὲ μέσσα λαβών· ῥέπε δ' Ἕκτορος αἴσιμον ἦμαρ,
Ὤχετο δ' εἰς Ἀΐδαο, λίπεν δέ ἑ Φοῖβος Ἀπόλλων.

2. (*a*) πῶς δὲ κεν ..... ὑπεξέφυγεν, explain the construction and also (*b*) the optative ἄροιτο. (*c*) Account for the case of θανάτοιο in the first line. (*d*) τανηλεγέος : etymology and meaning. (*e*) εἰς Ἀΐδαο : supply the ellipsis and make a note on the word. (*f*) Give the Attic forms of θανατοίο, γοῦνα, λαοῖσι, ἴεμεναι, λίπεν.

3. Scan the first six lines and note the metrical peculiarities. Define the following terms: *Diaeresis, Synizesis, Apocope.*

4. (*a*) Give the etymology and meaning of:—κελαινεφές, ὀαριζέμεναι, κορυθάιολος, δῖος, ἄλαστε. (*b*) Give the principal parts of ἤμβροτες, ἄροιτο, μεμαῶτ' δαμάᾳ, βείομαι, ἠλεύατο. (*c*) Decline ναύς, οὖς, πατήρ, Ἀχιλλεύς.

5. Translate:—

Ἣ δ' ἐπεὶ οὖν ἄμπνυτο καὶ ἐς φρένα θυμὸς ἀγέρθη,
Ἀμβλήδην γοόωσα μετὰ Τρωῇσιν ἔειπεν:
„Ἕκτορ, ἐγὼ δύστηνος. ἰῇ ἄρα γεινόμεθ' αἴσῃ
Ἀμφότεροι, σὺ μὲν ἐν Τροίῃ Πριάμου κατὰ δῶμα,
Αὐτὰρ ἐγὼ Θήβῃσιν ὑπὸ Πλάκῳ ὑληέσσῃ
Ἐν δόμῳ Ἠετίωνος, ὅ μ' ἔτρεφε τυτθὸν ἐοῦσαν,
Δύσμορος αἰνόμορον· ὡς μὴ ὄφελλε τεκέσθαι.
Νῦν δὲ σὺ μὲν Ἄϊδαο δόμους ὑπὸ κεύθεσι γαίης
Ἔρχεαι, αὐτὰρ ἐμὲ στυγερῷ ἐνὶ πένθεϊ λείπεις
Χήρην ἐν μεγάροισι· πάϊς δ' ἔτι νήπιος αὖτως,
Ὃν τέκομεν σύ τ' ἐγώ τε δυσάμμοροι· οὔτε σὺ τούτῳ
Ἔσσεαι, Ἕκτορ, ὄνειαρ, ἐπεὶ θάνες, οὔτε σοὶ οὗτος.

6. (*a*) ὡς μὴ ὄφελλε τεκεσθαι: what is the true explanation of such constructions? (*b*) ἔσσεαι: conjugate this verb in Homeric forms in the imperfect tense. (*c*) αἴσῃ: distinguish its synonyms. (*d*) δύστηνος: etymology. (*e*) ὄνειαρ: what are the various meanings of this word in Homer? (*f*) What case do the following words govern? πείθω, κατά, ἄρχω, κεύθω. (*g*) Principal parts of εὕρῃ, ἐλάαν, ἤλυθε, λαβών, φεύγω.

7. Notice the important points (grammatical):—

(i) ὡς δ' ὅτε νεβρὸν ὄρεσφι κύων ἐλάφοιο δίηται.

(ii) λίσσωμ' ἀνέρα τοῦτον ἀτάσθαλον ὀβριμοεργόν
ἤν πως ἡλικίην αἰδέσσεται.

(iii) αἴ γὰρ ἀπ' οὔατος εἴη ἐμεῦ ἔπος.

(iv) εἰ δὲ θανόντων περ καταλήθοντ' εἰν Ἀίδαο
αὐτὰρ ἐγὼ καὶ καῖθι φίλου μεμνήσομ' ἑταίρου.

8. *(a)* Translate :—

Τὸν δὲ μέγ' ὀχθήσας προσέφη πόδας ὠκὺς Ἀχιλλεύς
"Ἔβλαψάς μ', Ἑκάεργε, θεῶν ὀλοώτατε πάντων,
Ἐνθάδε νῦν τρέψας ἀπὸ τείχεος· ἦ κ' ἔτι πολλοὶ
Γαῖαν ὀδὰξ εἷλον πρὶν Ἰλίον εἰσαφικέσθαι.
Νῦν δ' ἐμὲ μὲν μέγα κῦδος ἀφείλεο, τοὺς δ' ἐσάωσας
Ῥηϊδίως, ἐπεὶ οὔτι τίσιν γ' ἔδεισας ὀπίσσω.
Ἦ σ' ἂν τισαίμην, εἴ μοι δύναμίς γε παρείη."

(*b*) State the uses of the Homeric article. How are τόν and τούς used in the above passage? (*c*) ἦ κ' ἔτι : what is the force of each of these particles? (*d*) Explain the form of the derivative ἑκάεργε. (*e*) State the rule in full for construction μὲ.....κῦδος. (*f*) ἂν τισαίμην : carefully explain this form of condition.

9. (*a*) Give the equivalent Attic form of the following words : ἄφειλεο, ἐών, πεδίοιο, πόληος, βίηφι, προτί, ἔπλετο, σεῖο.

(*b*) Derive, and explain any peculiarity of form : δράκων, κορυθάιξ, ἄμβροτον. (*c*) Inflect εἷς, δύο ; ἀνήρ, χείρ ; ἵστημι in the imperf. indic. act. (*d*) Give the stem and principal parts of ἐγείρω, ἐλαύνω, θνήσκω, καίω, λανθάνω, ὄλλυμι.

10. Translate (at sight) :—

Ἐν δ' ἄλλοισι θεοῖσιν ἔρις πέσε βεβριθυῖα[1]
Ἀργαλέη, δίχα δέ σφιν ἐνὶ χρεσὶ θυμὸς ἄητο.[2]
Σὺν δ' ἔπεσον μεγάλῳ πατάγῳ,[3] βράχε δ' εὐρεῖα χθών,
Ἀμφὶ δὲ σάλπιγξεν μέγας οὐρανός. Ἄϊε[4] δὲ Ζεὺς
Ἥμενος Οὐλύμπῳ· ἐγέλασσε δέ οἱ φίλον ἦτορ
Γηθοσύνῃ,[5] ὅθ' ὁρᾶτο θεοὺς ἔριδι ξυνιόντας.
Ἔνθ' οἵ γ' οὐκέτι δηρὸν ἀφέστασαν. ἦρχε γὰρ Ἄρης
Ῥινοτόρος,[6] καὶ πρῶτος Ἀθηναίῃ ἐπόρουσεν
Χάλκεον ἔγχος ἔχων, καὶ ὀνείδειον φάτο μῦθον·

[1]βεβριθυῖα, *heavy* ; [2]ἄητο, *wavered* ; [3]πατάγῳ, *roar* ; [4]ἄϊε, *perceived* ; [5]γηθοσύνῃ, *joy* ; [6]ῥινοτόρος, *shield-piercing*.

INTERMEDIATE EXAMINATION.

WEDNESDAY, APRIL 5TH:—MORNING, 9 TO 12.

Examiners, ... { A. J. EATON, M.A., PH.D. / W. CROCKET, M.A.

Assistant Examiner, ...JOHN L. DAY, B.A.

[Write the answers to A and B on separate sets of papers.]

A.—PLATO, APOLOGY.

1. Translate:—

(A) Μετὰ ταῦτ' οὖν ἤδη ἐφεξῆς ἦα αἰσθανόμενος μὲν καὶ λυπούμενος καὶ δεδιὼς ὅτι ἀπηχθανόμην, ὅμως δὲ ἀναγκαῖον ἐδόκει εἶναι τὸ τοῦ θεοῦ περὶ πλείστου ποιεῖσθαι· ἰτέον οὖν σκοποῦντι τὸν χρησμὸν τί λέγει ἐπι ἅπαντας τούς τι δοκοῦντας εἰδέναι. καὶ νὴ τὸν κύνα, ὦ ἄνδρες Ἀθηναῖοι—δεῖ γὰρ πρὸς ὑμᾶς τἀληθῆ λέγειν—ἦ μὴν ἐγὼ ἔπαθόν τι τοιοῦτον· οἱ μὲν μάλιστα εὐδοκιμοῦτες ἔδοξάν μοι ὀλίγου δεῖν τοῦ πλείστου ἐνδεεῖς εἶναι ξητοῦντι κατὰ τὸν θεόν, ἄλλοι δὲ δοκοῦντες φαυλότεροι ἐπιεικέστεροι εἶναι ἄνδρες πρὸς τὸ φρονίμως ἔχειν. δεῖ δὴ ὑμῖν τὴν ἐμὴν πλάνην ἐπιδεῖξαι ὥσπερ πόνους τινὰς πονοῦτος ἵνα μοι καὶ ἀνέλεγκτος ἡ μαντεία γένοιτο.

(B) Ὦ θαυμάσιε Μέλητε, ἵνα τί ταῦτα λέγεις; οὐδὲ ἥλιον οὐδὲ σελήνην ἄρα νομίζω θεοὺς εἶναι, ὥσπερ οἱ ἄλλοι ἄνθρωποι; Μὰ Δί', ὦ ἄνδρες δικασταί, ἐπεὶ τὸν μὲν ἥλιον λίθον φησὶν εἶναι, τὴν δὲ σελήνην γῆν. Ἀναξαγόρου οἴει κατηγορεῖν, ὦ φίλε Μελητε, καὶ οὕτω καταφρονεῖς τῶνδε καὶ οἴει αὐτοὺς ἀπείρους γραμμάτων εἶναι, ὥστε οὐκ εἰδέναι ὅτι τὰ Ἀναξαγόρου βιβλία τοῦ Κλαζομενίου γέμει τούτων τῶν λόγων; καὶ δὴ καὶ οἱ νέοι ταῦτα παρ' ἐμοῦ μανθάνουσιν, ἃ ἔξεστιν ἐνίοτε, εἰ πάνυ πολλοῦ, δραχμῆς ἐκ τῆς ὀρχήστρας πριαμένοις Σωκράτους καταγελᾶν, ἐὰν προσποιῆται ἑαυτοῦ εἶνοι, ἄλλως τε καὶ οὕτως ἄτοπα ὄντα.

(C) ἀλλὰ μὴ οὐ τοῦτ' ᾖ χαλεπον, ὦ ἄνδρες, θάνατον ἐκφυγεῖν, ἀλλὰ πολὺ χαλεπώτερον πονηρίαν. θᾶττον γὰρ θανάτου θεῖ. καὶ νῦν ἐγὼ μὲν ἅτε βραδὺς ὢν καὶ πρεσβύτης ὑπὸ τοῦ βραδυτέρου ἑάλων, οἱ δ' ἐμοὶ κατήγορο. ἅτε δεινοὶ καὶ ὀξεῖς ὄντες ὑπὸ τοῦ θάττονος, τῆς κακίας, καὶ νῦν ἐγὼ μὲν ἄπειμι ὑφ' ὑμῶν θανάτου δίκην ὄφλων, οὗτοι δ' ὑπὸ τῆς ἀληθείας ὠφληκότες μοχθηρίαν καὶ ἀδικίαν.

2. (*a*) *αἰσθανόμενος—λυπούμενος—δεδιώς ὁτι ἀπηχθανόμην*: remark on the use of the participles. Upon which of them does *ὅτι ἀπηχθανόμην* depend? (*b*) *περὶ πλείστου ποιεῖσθαι*: give the equivalent in Latin. (*c*) *ἰτέον οὖν σκοποῦντι*: express this thought in Latin, and remark on the construction of verbals in—*τέος*. (*d*) *τὴν ἐμὴν πλάνην..... πονοῦντος*: explain the construction of *πονοῦντος*. What apparent comparison does Socrates here make? (*e*) *ἵνα μοι .....γένοιτο*: account for the mood of *γένοιτο*. Another reading is *κἂν ἐλεγκτὸς* for *καὶ ἀνέλεγκτος*: which does the context seem to require?

3. (*a*) Supply the ellipsis in *ἵνα τί ταῦτα λεγεῖς*; Give the literal rendering. (*b*) *ὦ ἄνδρες δικασταί*: how does Socrates himself address the court? On what occasion does he use this form of address? Explain. (*c*) Remark on the construction of *ὥστε οὐκ εἰδέναι*, and *ἃ ἔξεστιν πριαμένοις* (*al. πριαμένους*) *Σωκράτους καταγελᾶν*.

4. (*a*) *ἀλλὰ μὴ οὐ τοὐτ' ᾖ χαλεπόν*: fill in the ellipsis and explain the use of the double negative. (*b*) What is the force of *ἅτε* with the participle? What other particles are used in the same way? (*c*) Give the principal parts of *ἑάλων*? What construction does this verb take as a law term?

5. (*a*) Explain the allusion to Anaxagoras and the

Stage in Ext. (B). (*b*) θᾶττον θανάτου θεῖ: remark on the form of expression, and on the thought. (*c*) Give the derivation of πένητι, ἀξιοχρέων, μύωψι, φορτικά. (*d*) Distinguish ταὐτά, ταῦτα, ταυτί: ἄττα, ἅττα. (*e*) Give the principal parts of διαλέγω, μανθάνω, ὄφλων, ἐλαύνω. (*e*) Give the various uses of ὥστε with the infinitive.

6. Write briefly on the following topics: (1) οἱ ἕνδεκα. (2) δικασταί. (3) ἀγῶνες ἀτίμητοι. (4) The Three Accusers of Socrates. (5) Socrates' Conception of ἀρετή.

B.—XENOPHON, MEMORABILIA, BK. I.

7. Translate:—

(*α*) Ἀλλὰ μὴν ἐποίει καὶ τάδε προς τοὺς ἐπιτηδείους τὰ μὲν γὰρ ἀναγκαῖα συνεβούλευε καὶ πράττειν, ὡς ἐνόμιζεν ἄριστ' ἂν πραχθῆναι· περὶ δὲ τῶν ἀδήλων, ὅπως ἂν ἀποβήσοιτο, μαντευσαμένους ἔπεμπεν, εἰ ποιητέα.

(*β*) Κἀγὼ δὲ μαρτυρῶ τούτοις· ὁρῶ γὰρ, ὥσπερ τῶν ἐν μέτρῳ πεποιημένων ἐπῶν τοὺς μὴ μελετῶντας ἐπιλανθανομένους, οὕτω καὶ τῶν διδασκαλικῶν λόγων τοῖς ἀμελοῦσι λήθην ἐγγιγνομένην. Ὅταν δὲ τῶν νουθετικῶν λόγων ἐπιλάθηταί τις, ἐπιλέλησται καὶ ὧν ἡ ψυχὴ πάσχουσα τὴς σωφροσύνης ἐπεθύμει· τούτων δ' ἐπιλαθόμενον, οὐδὲν θαυμαστὸν καὶ τῆς σωφρυσύνης ἐπιλαθέσθαι.

(*γ*) Ἐπεὶ τοίνυν τάχιστα τῶν πολιτευομένων ὑπελαβον κρείττονες εἶναι, Σωκράτει μὲν οὐκέτι προσῆεσαν· οὔτε γὰρ αὐτοῖς ἄλλως ἤρεσκεν, εἴ τε προσελθοιεν, ὑπὲρ ὧν ἡμάρτανον ἐλεγχόμενοι ἤφθοντο· τὰ δὲ τῆς πολέως ἔπραττον ὧνπερ ἕνεκα καὶ Σωκράτει προσῆλθον.

8. Ext. (*α*)—(1) Explain construction of ἄριστ' ἂν πραχθῆναι and (2) of ὅπως ἂν ἀποβήσοιτο. In the latter case (3) what would be the more usual form? (4) ποιητέα: what would be the meaning of ποιητά?

Ext. (*b*)—(1) τοὺς μὴ μελετῶντας: why is μὴ used here?

Distinguish its use in such an instance from that of *οὐ*. (2) *ὅταν . . . ἐπιλάθηται*: which form of conditional sentence? (3) *ὧν*: account for case.

Ext. (*c*)—(1) *τοίνυν*: what is the force of this particle? (2) *εἴτε προσέλθοιεν*: construction. (3) *ὑπέρ*: in what sense is this word here used? (4) *ἐλεγχόμενοι*: explain the syntax of this participle.

9. State the various constructions which are found with verbs of *hindering* and *preventing*? How may "This differs from that" be translated into Greek?

10. Explain the construction of the following:—

(i) *οὕτω δὲ καὶ Σωκράτην δίκαιον ἦν κρίνειν* (translate this into Latin).

(ii) *αὐτὸς δὲ περὶ τῶν ἀνθρωπείων ἂν ἀεὶ διελέγετο.*

(iii) *οὐχ εἶχε ὅπῃ ἐπιλάβοιτο.*

THIRD YEAR.

GREEK.—EURIPIDES.—MEDEA.

MONDAY, APRIL, 10TH:—MORNING, 9 TO 12.

Examiner.....REV. GEORGE CORNISH, M. A., L L. D.

1. Translate:—

(A) ΜΗ. *ὦ μεγάλα Θέμι καὶ πότνι' Ἄρτεμι,*
λεύσσεθ' ἃ πάσχω, μεγάλοις ὅρκοις
ἐνδησαμένα τὸν κατάρατον
πόσιν; ὃν ποτ' ἐγὼ νύμφαν τ' ἐσίδοιμ'
αὐτοῖς μελάθροις διακναιομένους,
οἵ γ' ἐμὲ πρόσθεν τολμῶσ' ἀδικεῖν.
ὦ πάτερ, ὦ πόλις, ὧν ἀπενάσθην
αἰσχρῶς, τὸν ἐμὸν κτείνασα κάσιν.

ΤΡ. *κλύεθ' οἷα λέγει κἀπιβοᾶται*
Θέμιν εὐκταίαν Ζηνά θ', ὃς ὅρκων
θνητοῖς ταμίας νενόμισται;
οὐκ ἔστιν ὅπως ἔν τινι μικρῷ
δέσποινα χόλον καταπαύσει.

(B) ΚΡ. ἕρπ', ὦ ματαία, καὶ μ' ἀπάλλαξον πόνων.
ΜΗ. πονοῦμεν ἡμεῖς κοὐ πόνων κεχρήμεθα.
ΚΡ. τάχ' ἐξ ὀπαδῶν χειρὸς ὡσθήσει βίᾳ.
ΜΗ. μὴ δῆτα τοῦτό γ' ἀλλά σ' αἰτοῦμαι, Κρέον.
ΚΡ. ὄχλον παρέξεις, ὡς ἔοικας, ὦ γύναι.
ΜΗ. φευξούμεθ', οὐ τοῦθ' ἱκέτευσα σοῦ τυχεῖν.
ΚΡ. τί δ' οὖν βιάζει κοὐκ ἀπαλλάσσει χθονός;
ΜΗ. μὴ, πρός σε γονάτων τῆς τε νεογάμου κόρης,
ΚΡ. λόγους ἀναλοῖς· οὐ γὰρ ἂν πείσαις ποτέ.
ΜΗ. ἀλλ' ἐξελᾷς με, κοὐδὲν αἰδέσει λιτάς;
ΚΡ. φιλῶ γὰρ οὐ σὲ μᾶλλον ἢ δόμους ἐμούς.
ΜΗ. ὦ πατρὶς, ὡς σου κάρτα νῦν μνείαν ἔχω.
ΚΡ. πλὴν γὰρ τέκνων ἔμοιγε φίλτατον πόλις.
ΜΗ. φεῦ φεῦ· βροτοῖς ἔρωτες ὡς κακὸν μέγα.
ΚΡ. ὅπως ἂν, οἶμαι, καὶ παραστῶσιν τύχαι.
ΜΗ. Ζεῦ, μὴ λάθοι σε τῶνδ' ὃς αἴτιος κακῶν.

(C) τί προσγελᾶτε τὸν πανύστατον γέλων;
αἰαῖ· τί δράσω; καρδία γὰρ οἴχεται,
γυναῖκες, ὄμμα φαιδρὸν ὡς εἶδον τέκνων.
ουκ ἂν δυναίμην· χαιρέτω βουλεύματα
τὰ πρόσθεν. ἄξω παῖδας ἐκ γαίας ἐμούς.
τί δεῖ με πατέρα τῶνδε τοῖς τούτων κακοῖς
λυποῦσαν αὐτὴν δὶς τόσα κτᾶσθαι κακά:
οὐ δῆτ' ἔγωγε. χαιρέτω βουλεύματα.
καίτοι τί πάσχω; βούλομαι γέλωτ' ὀφλεῖν
ἐχθροὺς μεθεῖσα τοὺς ἐμοὺς ἀζημίους;
τολμητέον τάδ'. ἀλλὰ τῆς ἐμῆς κάκης,
τὸ καὶ προέσθαι μαλθακοὺς λόγους φρενός.
χωρεῖτε, παῖδες, ἐς δόμους· ὅτῳ δὲ μὴ
θέμις παρεῖναι τοῖς ἐμοῖσι θύμασιν,
αὐτῷ μελήσει. χεῖρα δ' οὐ διαφθερῶ.

2 (*a*) Explain the difference in οὐ πόνων κεχρήμεθα and ξυμφορᾷ κεχρημένους, as regards the use of the case. (*b*)

οὐ γὰρ ἂν πείσαις ποτέ: — Express the force of this usage. (*c*) πρός σὲ γονάτων:—Show the construction, and supply the ellipsis. (*d*) In vs. 12, ext. (C), the common reading is φρενί:—distinguish between the two as to the meaning and construction of the verse, and defend that here adopted.

3. Translate, with such short explanatory notes as you think requisite, the following:— (1) χεῖρα οὐ διαφθερῶ. (2) γέλωτ' ὀφλεῖν. (3) κάτει τοι καὶ σὺ πρὸς τέκνων ἔτι. (4) τὸν Ἅιδα κόσμον. (5) γυνὴ δὲ θῆλυ ἔφυ. (6) οἴμαι γὰρ ὑμᾶς τὰ πρῶτ' ἔσεσθαι. (7) ἐκ τοῦδ' ἀναψόμεσθα πρυμνήτην κάλων. (8) ἄκροισι λαίφους κρασπέδοις ὑπεκδραμεῖν.

4. Parse the following words:—τοῦ, πεσεῖν, ἥπατος, κέκρανται, ἄζυγες, ἀναλοῖς, σφ', ἐλᾶν, τεύξει, δεδόκησαι.

5. Give the meaning and derivation of:—φαιδρόν, ἀμβ,—ρόσιος, λῷον, θεσπιῳδόν ξύμβολα, ζηλωτόν ἀβρῶς, ἑκατιστόμαργον, δυσίατος.

6. Illustrate the different meanings of the following, according, as their accentuation and, in the case of some, breathings differ:—ουν, παρα, σιγα, καλων, κακης, ἀλλα, οιος, αγγειλαι.

7. Explain the processes called *Elision* and *Crasis*, and give examples in ἐπὶ ἑτέρῳ, καὶ αὐτός, ὁ ἀνήρ. (*b*) Give the equivalents of:—ἐγῳμαι, ἐμοὐστι, κἀτα,

8. Write down the scheme (1) of the Iambic Trimeter Acatalectic, of the Tragedians; and (2) of the Anapaestic Dimeter Acatalectic, indicating the isochronous feet. Scan the last two verse of (A) and (B), severally.

B. A. ORDINARY EXAMINATION.

FRIDAY, APRIL, 14TH :— MORNING, 9 TO 12.

GREEK,..... { ÆSCHINES.—CONTRA CTESIPHONTEM. / ÆSCHYLUS.—PROMETHEUS VINCTUS.

Examiner,.....REV. GEORGE CORNISH, M.A., LL.D.

1. Translate :—

(A) Ὅταν τοίνυν μάλιστα θρασύνηται Δημοσθένης λέγων, ὡς διὰ τὴν ἐπίδοσιν οὐκ ἔστιι ὑπεύθυνος, ἐκεῖνο αὐτῷ ὑποβάλλετε· „ οὐκ οὖν ἐχρῆν σε, ὦ Δημόσθενες, ἐᾶσαι τὸν τῶν λογιστῶν κήρυκα κηρῦξαι τὸ πάτριον καὶ ἔννομον κήρυγμα τοῦτο, τίς βούλεται κατηγορεῖν; ἔασον ἀμφισβητῆσαί σοι τὸν βουλόμενον τῶν πολιτῶν, ὡς οὐκ ἐπέδωκας. ἀλλ' ἀπὸ πολλῶν ὧν ἔχεις εἰς τὴν τειχῶν οἰκοδομίαν μικρὰ κατέθηκας, δέκα τάλαντα εἰς ταῦτα ἐκ τῆς πόλεως εἰληφώς. μὴ ἅρπαζε τὴν φιλοτιμίαν, μηδὲ ἐξαιροῦ τῶν δικαστῶν τὰς ψήφους ἐκ τῶν χειρῶν, μηδ' ἔμπροσθεν τῶν νόμων ἀλλ' ὕστερος πολιτεύου. ταῦτα γὰρ ὀρθοῖ τὴν δημοκρατίαν."

(B) Ἔστι γάρ, ὦ ἄνδρες Ἀθηναῖοι, τὸ Κιρραῖον ὠνομασμένον πεδίον καὶ λιμὴν ὁ νῦν ἐξάγιστος καὶ ἐπάρατος ὠνομασμένος. ταύτην ποτὲ τὴν χώραν κατῴκησαν Κιρραῖοι καὶ Ἀκραγαλλίδαι, γένη παρανομώτατα, οἳ εἰς τὸ ἱερὸν τὸ ἐν Δελφοῖς καὶ τὰ ἀναθήματα ἠσέβουν, ἐξημάρτανον δὲ καὶ εἰς τοὺς Ἀμφικτύονας. ἀγανακτήσαντες δ' ἐπὶ τοῖς γενομένοις μάλιστα μὲν, ὡς λέγεται, οἱ πρόγονοι οἱ ὑμέτεροι, ἔπειτα δὲ καὶ οἱ ἄλλοι Ἀμφικτύονες μαντείαν ἐμαντεύσαντο παρὰ τῷ θεῷ, τίνι χρὴ τιμωρίᾳ τοὺς ἀνθρώπους τούτους μετελθεῖν. καὶ αὐτοῖς ἀναιρεῖ ἡ Πυθία πολεμεῖν Κιρραίοις καὶ Ἀκραγαλλίδαις πάντ' ἤματα καὶ πάσας νύκτας, καὶ τὴν χώραν αὐτῶν ἐκπορθήσαντας καὶ αὐτοὺς ἀνδραποδισαμένους ἀναθεῖναι τῷ Ἀπόλλωνι τῷ Πυθίῳ καὶ Ἀρτέμιδι καὶ Λητοῖ καὶ Ἀθηνᾷ Προνοίᾳ ἐπὶ πάσῃ ἀεργίᾳ, καὶ ταύτην τὴν χώραν μήτ' αὐτοὺς ἐργάζεσθαι μήτ' ἄλλον ἐᾶν.

(C) Ὁ δ' εἰσάγων ἦν ὑμᾶς εἰς τὰς Θήβας καιρὸς καὶ φόβος καὶ χρεία συμμαχίας, ἀλλ' οὐ Δημοσθένης, ἐπεὶ περί γε ταύτας πράξεις τρία τὰ πάντων μέγιστα Δημοσθένης εἰς ὑμᾶς ἐξημάρτηκε, πρῶτον μὲν, ὅτι Φιλίππου τῷ μὲν ὀνόματι πολεμοῦντος ὑμῖν, τῷ δ' ἔργῳ πολὺ μᾶλλον μισοῦντος Θηβαίους, ὡς αὐτὰ τὰ πράγματα δεδήλωκε, καὶ τί δεῖ τὰ πλείω λέγειν; ταῦτα μὲν τὰ τηλικαῦτα τὸ μέγεθος ἀπεκρύψατο, προσποιησάμενος δὲ μέλλειν τὴν συμμαχίαν γενήσεσθαι οὐ διὰ τοὺς καιροὺς, ἀλλὰ διὰ τὰς αὑτοῦ πρεσβείας, πρῶτον μὲν συνέπεισε τὸν δῆμον μηκέτι βουλεύεσθαι ἐπὶ τίσι δεῖ ποιεῖσθαι τὴν συμμαχίαν, ἀλλ' ἀγαπᾶν μόνον, εἰ γίγνεται, τοῦτο δὲ προλαβὼν ἔκδοτον μὲν τὴν Βοιωτίαν πᾶσαν ἐποίησε Θηβαίοις, γράψας ἐν τῷ ψηφίσματι, ἐάν τις ἀφιστῆται πόλις ἀπὸ Θηβαίων, βοηθεῖν Ἀθηναίους Βοιωτοῖς τοῖς ἐν Θήβαις τοῖς ὀνόμασι κλέπτων καὶ μεταφέρων τὰ πράγματα, ὥσπερ εἴωθεν, ὡς τοὺς Βοιωτοὺς ἔργῳ κακῶς πάσχοντας τὴν τῶν ὀνομάτων σύνθεσιν τῶν Δημοσθένους ἀγαπήσοντας, ἀλλ' οὐ μᾶλλον ἐφ' οἷς κακῶς πεπόνθεσαν ἀγανακτήσοντας.

2. Explain the geographical references of ext. (B). For Προνοίᾳ what other reading is there?

3. Write short explanatory notes on the following references:—(1) τὸν Ἄθων διορύξας. (2) τὸ τοῖς μυστηρίοις σημεῖον φανέν. (3) πρὸ τῆς ἐπιούσης πυλαίας· (4) εἰς προεδρίαν καλέσας. (5) τὴν γραφὴν ἀλώσεται. (6) ἀρχὴν ὑπεύθυνον. (7) ἡγεμονίας δικαστηρίων. (8) πυλάγοροι.

4. Translate and explain the following idiomatic phrases:—(*a*) προσέμιξε φέρων. (*b*) ἔλαθεν μικρὸν ἐπισχὼν ὑφελόμενος. (*c*) ἐκεῖνο πεπόνθατε. (*d*) ἐπὶ διετὲς ἠβῶσι. (*e*) ἦκε φερόμενος εἰς τὴν ἑαυτοῦ φύσιν. (*f*) τὰς εὐθύνας ὠφληκώς.

5. Explain briefly the following:—Προβουλευμα, ψήφισμα, νομός, χειροτονία. οἱ πρυτάνεις. ἡ προεδρεύουσα

φύλη. ὁ νομοθέτης. ὁ ὑπεύθυνος. οἱ θεσμοθέται. οἱ πάραλοι. οἱ ἱερομνήμονες.

6. Translate Æschylus, Prometheus Vinctus :—

(*a*) τὰ λοιπὰ μου κλύουσα θαυμάσει πλέον,
οἵας τεχνας τε καὶ πόρους ἐμησάμην.
τὸ μὲν μέγιστον, εἴ τις ἐς νόσον πέσοι,
οὐκ ἦν ἀλέξημ' οὐδὲν, οὔτε βρώσιμον,
οὐ χριστὸν, οὔτε πίστόν· ἀλλὰ φαρμάκων
χρείᾳ κατεσκελλοντο, πρίν γ' ἐγὼ σφίσιν
ἔδειξα κράσεις ἠπίων ἀκεσμάτων,
αἷς τὰς ἁπάσας ἐξαμύνονται νόσους.

Derive ἀλέξημα, βρώσιμον, χριστόν, πίστον, κατεσκέλλοντο, κράσεις. Mention derived words of any in English.

(*b*) ἐπώνυμον δὲ τῶν Διὸς γεννημάτων
τέξεις κελαινὸν Ἔπαφον· ὃς καρπώσεται
ὅσην πλατύρρους Νεῖλος ἀρδεύει χθόνα·
πέμπτη δ' ἀπ' αὐτοῦ γέννα πεντηκοντάπαις
πάλιν πρὸς Ἄργος οὐχ ἑκοῦσ' ἐλεύσεται
θηλύσπορος, φεύγουσα συγγενῆ γάμον
ἀνεψιῶν.

Narrate briefly the myth here referred to.

(*c*) τοῖον παλαιστὴν νῦν παρασκευάζεται
ἐπ' αὐτῷ, δυσμαχώτατον τέρας
ὃς δὴ κεραυνοῦ κρείσσον' εὑρήσει φλόγα,
βροντάς θ' ὑπερβάλλοντα καρτερὸν κτύπον·
θαλασσίαν τε γῆς τινάκτειραν νόσον
τρίαιναν, αἰχμὴν τὴν Ποσειδωνος, σκεδᾷ.
πταίσας δὲ τῷδε πρὸς κακῷ μαθήσεται
ὅσον τό τ' ἄρχειν καὶ τὸ δουλεύειν δίχα.

Παλαιστήν, to whom is the reference? τινάκτειραν, show the formation of this.

(*d*) ὀχλεῖς μάτην με κὐμ' ὅπως παρηγορῶν.
εἰσελθέτω δε μήποθ' ὡς ἐγὼ Διὸς
γνώμην φοβηθεὶς θηλύνους γενήσομαι
καὶ λιπαρήσω τὸν μέγα στυγούμενον
γυναικομίμοις ὑπτιάσμασιν χερῶν
λῦσαι με δεσμῶν τῶνδε· τοῦ παντὸς δέω.

τοῦ παντὸς δέω, give the construction.

(*e*) Διὸς δέ τοι
πτηνὸς κύων, δαφονὸς αἰετὸς λάβρως
διαρταμήσει σώματος μέγα ῥάκος,
ἄκλητος ἕρπων δαιτελεὺς πανήμερος,
μελαινόβρωτον δ' ἦπαρ ἐκθοινήσεται.

(*e*) δαφονός,—derive; also ῥάκος, ἄκλητος, πανήμερος, with the correct interpretation of the last.

7. Designate the metre, write down the scheme, and scan ext. (*e*).

8. (*a*) Give the proximate date of this Drama, adducing internal evidence. (*b*) What political references are there supposed to be in it? (*c*) Name the other Dramas which, with this, were composed by Æschylus on the legend of Prometheus.

B.A. ORDINARY EXAMINATION.

GREEK HISTORY.

FRIDAY, APRIL 14TH:—AFTERNOON, 2 TO 3.20.

Examiner, ...REV. GEORGE CORNISH, M.A., LL.D.,

From the close of the Peloponnesian War to the death of Philip.

1. An account of the battle of Cnidus. What were its consequences?

2. Describe the character and results of the Peace of Antalcidas.

3. What policy did the Athenians adopt after the battle of Leuctra? A short account of Alexander of Pherae.

4. Trace the steps by which Philip gained the ascendency in the affairs of Greece.

5 What was the policy of Demosthenes?

FIRST YEAR.

LATIN.

VIRGIL, AENEID, BKS. XI, XII.—LATIN PROSE COMPOSITION.

THURSDAY, APRIL 6TH:—MORNING, 9 TO 12.

Examiner, ... A. J. EATON, M.A., PH D.

A

1. Translate:—

(*a*) Tene," inquit, "miserande puer, cum laeta veniret,
Invidit fortuna mihi, ne regna videres
Nostra, neque ad sedes victor vehere paternas?
'Non haec Evandro de te promissa parenti
Discedens dederam: cum me complexus euntem
Metteret in magnum imperium, metuensque moneret
Ares esse viros, cum dura praelia gente.

(*b*) Qualis bi alterno procurrens gurgite pontus
Nunc ruit ad terras, scopulosque superiacit undam
Spumeus, extremamque sinu perfundit arenam;
Nunc rapidus retro, atque aestu revoluta resorbens
Saxa fugit, litusque vado labente relinquit.

(*c*) Utque procul medio iuvenum in clamore furentum
Prospexit tristi multatam morte Camillam,
Ingemuitque deditque has imo pectore voces:
"Heu nimium, virgo, nimium crudele luisti
Supplicium, Teucros conata lacessere bello!
Nec tibi desertae in dumis coluisse Dianam
Profuit, aut nostras humero gessisse pharetras.'

2. Ext. (*a*):—1. The construction of *veniret, videres, mitteret, esse.* 2. Account for case of *mihi.*

Ext. (*b*):—1. *Alterno gurgite:* what explanations have been given of this? 2. *Sinu:* case? 3 *aestu:* derivation. 4. *vado labente:* syntax.

Ext. (*c*) 1. *multatam:* what other reading occurs for this word? Distinguish the two. 2. *luisti:* the principal parts of this verb. Is *lustrum* connected with its root? 3. *desertae:* what is peculiar in the use of this word? 4. *umero:* case. 5. In what different signification is *lacessos* used in Bk. XII?

3. Note the more important points in the syntax of the following passages:—

(i) Aequius huic Turnum fuerat se opponere morti.

(ii) Si bellum finire manu, si pellere Teucros
Apparet, his mecum decuit concurrere telis:
Vixet, cui vitam deus aut sua dextra dedisset.
(iii) Equidem et vivis concedere vellem.

4. (*a*) Etymology (and meaning):—*sospite, haruspex, Penates, procorum segnes, ultro.* (*b*) Part of verb:—*faxo, pepigere, vixet, obnixo, patieris.* (*c*) Distinguish, according to quantity of penult:—*plaga, refert, reliqui, solo, sedes.* (*d*) Hendiadys:—explain and illustrate.

5. A short account of the burial customs of the Romans.

6. Notes on: *Protei columnas, obliqua invidia, orichalcum, sancti custos Soractis Apollo, sparus.*

(B) Latin Composition.

7. Translate into English:—

Eo de media nocte Caesar *iisdem ducibus* usus qui nuntii ab Iccio venerant, Numidas et Cretas sagittarios et funditores Baleares *subsidio oppidanis* mittit; quorum adventu et Remis cum spe *defensionis* studium propugnandi accessit, et hostibus eadem de causa spes *potiundi oppidi* discessit.

8. Explain fully and clearly the Syntax of italicized words.

9. Write a note on the following constructions (illustrating by examples):—(*a*) Locative forms and uses; (*b*) Ablative of Comparison; (*c*) Indirect Questions.

10. Translate into Latin:—

(1) Having led out their forces, they pitched a camp. (2) Certain islands helped the Persians in the war. (3) Most of the Belgians are of German origin, and were led over the Rhine in ancient times on account of the fertility of the land. (4) The former was twelve feet in height, the latter eighteen feet wide. (5) Since this hill was a favourable place for fighting, he decided to fortify it. (6) The host of the enemy was so great and their reputation for courage so pre eminent, that Caesar refrained from a general engagement; still, he decided to try skirmishes daily. Seeing, by the cavalry skirmishes, that his own men were not inferior, after fortifying the hill on which he had set his camp, he drew up six legions in battle order, no longer fearing that his men might be surrounded by the host of the enemy.

FIRST YEAR.

MYER'S HISTORY OF ROME.—BENDER'S ROMAN LITERATURE.

THURSDAY, APRIL 6TH :—2 TO 4.30 P.M.

Examiner,..... A. J. EATON, M.A., PH.D.

N.B.—Candidates are required to answer ten questions only, including 3, 7, 6 or 8, 10, 11, 12, 13.

A.

1. Italian race: its branches and geographical distribution.

2. The topography of Early Rome.

3. Trace the various steps which were taken to ameliorate the condition of the Plebs (to 367 B.C.).

4. (*a*) The causes of the second Punic war. (*b*) Sketch the more important events of this war. (*c*) The results.

5. When, where, and under what circumstances were these battles fought? Cynoscephalae, Munda, Aegates Insulae, Caudine Forks, Actium.

6. Outline the reign of Augustus.

7. Explain: *ager Romanus; Comitia Centuriata*; *Fetiales; Senatus; Imperator; Curiales; Legio.*

8. Sketch the career of Caesar (*Gaius Julius*).

9. Spurius Cassius; Camillus; Gaius Flaminius; Sulla; Marcus Aurelius; Zenobia; Propertius. Refer these characters to the period in which each lived. For what are they severally celebrated?

B

10. Name the chief representatives of *Lyric*, *Epic*, *Didactic* and *Satiric* poetry in the Golden Age of Roman Literature.

11. Remark on the diverse characters of the Ciceronian and Augustan ages.

12. Write briefly on the Life of Virgil, his chief works, and the poet's aim in their production.

13. Give a short account of Ovid and his writings.

INTERMEDIATE EXAMINATION.

LATIN.—LIVY AND HORACE.

THURSDAY, APRIL 6TH:—MORNING, 9 TO 12.

Examiners, ... { A. JUDSON EATON, M.A., PH.D. / PROF. CROCKET, M.A.

1. Translate:—

(A) Fabius per loca alta agmen ducebat modico ab hoste *intervallo*, ut neque omitteret eum neque congrederetur. *Castris*, nisi *quantum* usus necessarii *cogerent*, tenebatur miles; pabulum et ligna nec pauci petebant nec passim; equitum levisque armaturae statio conposita instructaque in subitos tumultus, et suo militi tuta omnia et infesta effusis hostium populatoribus praebebat; neque universo periculo summa rerum committebatur, et parva momenta levium certaminum ex tuto coeptorum, finitimo receptu, adsuefaciebant territum pristinis cladibus militem minus iam tandem aut virtutis aut *fortunae* paenitare suae.

(B) Consules Atilius Fabiano Geminus Servilius Minuciano exercitu, accepto hibernaculis mature communitis, *quod reliquum autumni erat* Fabi artibus cum summa inter se concordia bellum gesserunt. *Frumentatum* exeunti Hannibali diversis locis opportuni aderant carpentes agmen palatosque excipientes; in casum universae dimicationis, quam omnibus artibus petebat hostis, non veniebant: adeoque inopia est coactus Hannibal, ut nisi cum fugae specie abeundum timuisset, Galliam *repetiturus fuerit* nulla relicta spe alendi exercitus in eis locis, si insequentes consules eisdem artibus bellum gererent.

(C) Hannibali victori cum ceteri circumfusi gratularentur suaderent, que, ut tanto perfunctus bello diei quod reliquum esset noctisque insequentis quietem et ipse sibi sumeret et fessis daret militibus, Maharbal praefectus equitum, minime cessandum ratus "immo ut, quid hac pugna sit actum, scias, die quinto" inquit "victor in Capitolio epulaberis. Sequere: cum equite, ut prius venisse quam venturum *sciant*, praecedam." Hannibali nimis laeta res est visa maiorque, quam ut eam statim capere animo posset. Itaque voluntatem se laudare Maharbalis ait, ad consilium pensandum *temporis* opus esse. Tum Maharbal: "non omnia nimirum eidem dii dedere: vincere scis, Hannibal, victoria uti nescis." Mora eius diei satis creditur saluti fuisse urbi atque imperio.

2. Explain carefully the Syntax of words printed in *italics* in the above extracts.

3. Give the derivation and meaning of *passim*, *tutus*, *pristinus*, *pabulum*, *medius fidius*, *plebiscitum*.

4. Distinguish *palari, vagari; arma, tela; fere, ferme; plebis concilium, comitia centuriata, comitia curiata, comitia tributa; bina castra, duo castra*.

5. Translate and comment on *italicized* words or phrases:—

(*a*) decretum est Iovi primum donum fulmen aureum *pondo* quinquaginta fieret.

(*b*) dum consul *habendo dilectu* dat operam, Hannibal profectus ex hibernis.

(*c*) itaque *plebeiscitum quo onoratus sum magis quam honoratus, primus antiquo* abrogo.

6. (*a*) Give the geographical position of *Ostia*, *Praeneste*, *Saguntum*, *Cumae*, *Teanum*, *Aegates Insulae*, *Zama*, *Heraclea*. (*b*) Write brief notes on *Fabius Pictor*, *Claudius Pulcher*, *Cursor Papirius*, *Pyrrhus*, *Varro*.

7. Note the chief peculiarities of Livy's style.

8. Describe the battle of Cannae, as narrated by Livy, showing, as well as you can, the relative position of the opposing forces at the beginning of the battle.

9. Translate:—

(A) "O cives, cives, quaerenda pecunia primum est,
virtus post nummos." Haec Ianus summus ab imo
prodocet, haec recinunt iuvenes dictata senesque,
laevo suspensi loculos tabulamque lacerto.
Est animus tibi, sunt mores et lingua fidesque,
sed quadringentis sex septem milia desunt:
plebs eris.

(B) Invidus alterius macrescit rebus opimis;
invidia Siculi non invenere tyranni
maius tormentum. Qui non moderabitur irae,
infectum volet esse dolor quod suaserit et mens,
dum poenas odio per vim festinat inulto.

(C) Hunc solem et stellas et decedentia certis
tempora momentis sunt qui formidine nulla
imbuti spectent. Quid censes munera terrae,
quid maris extremos Arabas ditantis et Indos,
ludicra quid plausus et amici dona Quiritis,
quo spectanda modo, quo sensu credis et ore?

10. (Ext. A.) (1) How is this passage connected in thought with the preceding lines of the context? 2. Remark on the phrases *Ianus summus ab imo, prodocet, suspensi loculos* (3) Explain (in Latin terms, if possible) the meaning of *animus*, *mores*, *lingua*, *fides*. (4) Comment on *sed quadringentis..... ..... desunt.*

11. (Exts. B and C). (1) Give the derivation of *increscit, momentis, ditantis.* (2) Scan the first line of Ext. (B) and the last line of Ext. (C), remarking on any peculiarities. (3) Account for the grammatical construction of *rebus opimis, irae, odio, munera, maris, plausus.*

12. Write a brief sketch of Horace's life. Remark on the style of his epistles, and the questions discussed in them.

INTERMEDIATE EXAMINATION.

LATIN COMPOSITION AND TRANSLATION AT SIGHT.

THURSDAY, APRIL 6TH:—AFTERNOON, 2 TO 5.

Examiners,..... { A. JUDSON EATON, PH.D. / W. CROCKET, M.A.

1. Translate into English:—

Iam ad Hannibalem legati ab Carthagine, vocantes in Africam, venerunt. Frendens[1], gemensque, ac vix lacrimis temperans, dicitur legatorum verba audisse. Postquam edita sunt mandata, "Iam non perplexe[2]" inquit, "sed palam revocant, qui, vetando supplementum et pecuniam mitti, iam pridem retrahebant. Vicit ergo Hannibalem non populus Romanus toties caesus fugatusque, sed senatus Carthaginiensis obtrectatione atque invidia. neque hac deformitate reditus mei tam P. Scipio exsultabit atque efferat sese quam Hanno, qui domum nostram, quando alia re non potuit, ruina Carthaginis oppressit." Iam hoc ipsum praesagiens animo, praeparaverat ante naves. Itaque, inutili militum turba praesidii specie in oppida. Bruttii agri, quae pauca magis metu, quam fide, continebantur, dimissa, quod roboris in exercitu erat, in Africam transvexit; multis Italici generis, quia in Africam secuturos abnuentes concesserant in Iunonis Laciniae delubrum, inviolatum ad eam diem, in templo ipso foede interfectis. Raro quemquam alium, patriam exsilii causa relinquentem, magis maestum abisse ferunt, quam Hannibalem hostium terra excedentem: respexisse saepe Italiae litora, et deos hominesque accusantem, in se quoque ac suum ipsius caput exsecratum, "quod non cruentum ab Cannensi victoria militem Romam duxisset. Scipionem ire ad Carthaginem ausum, qui consul hostem in Italia Poenum non vidisset: se, centum milibus Casilinum Cumasque et Nolam consenuisse. Haec accusans querensque ex diutina possessione Italiae est detractus.

[1] frendo, *gnash with the teeth, rave.* [2] perplexe, *ambiguously.*

2. Translate into Latin:

In the beginning of the summer in which all this had happened, hostilities commenced in Spain, both by land and sea. Hasdrubal added ten ships to the fleet which he had received from his brother, ready equipped for action. But the war progressed more as the Romans wished. On

Scipio in one slight naval battle made himself master of the whole Spanish sea. After that victory, they disembarked, captured, and plundered one city after another, always ready to fight whatever division of the enemy's forces they might meet. The only circumstance that prevented all the tribes of Spain from openly preferring an alliance with Rome to that with the Carthaginians was, that they feared lest the guilt of their defection should be expiated by the blood of their children.

LATIN.—THIRD YEAR.

PLINY, SELECT LETTERS.—CICERO, DE NATURA DEORUM.

THURSDAY, APRIL 6TH:—MORNING, 9 to 12.

Examiner, ... A. JUDSON EATON, M.A., PH D.

1. Translate with notes, grammatical and explanatory:—

(*a*) Temptavi enim imitari Demosthenem semper tuum, Calvum nuper meum, dumtaxat figuris orationis: nam vim tantorum virorum "*pauci quos aequus amavit*" adsequi possunt.

(*b*) Quo magis te, *cui* vacat, hortor, cum in urbem proxime *veneris* (*venias* autem ob hoc maturius), illi te *expoliendum* limandumque permittas. Neque enim ego, ut multi, invideo *aliis bono quo* ipse careo, sed contra sensum quendam voluptatemque percipio, si ea quae mihi denegantur amicis video superesse.

(*c*) *Magnum proventum poetarum* annus hic attulit: toto mense Aprili nullus fere dies, quo non *recitaret* aliquis. Iuvat me quod vigent studia proferunt se ingenia hominum et ostentant, tametsi ad audiendum pigre coitur.

(*d*) Adiacet unctorium, hypocaustum, adiacet propnigneon balinea; cohaeret calida piscina mirifica, ex qua natantes mare aspiciunt: nec procul, sphaeristerium quod calidissimo soli inclinato iam die occurrit.

(*e*) *Caesares* quibus suspectus atque etiam invisus *virtutibus* fuerat evasit, reliquit *incolumem optimum* atque amicissimum, tamquam ad hunc ipsum publici funeris reservatus.

(*f*) Dices, ut soles, "amici mei viderint."

2. Write notes on—*μουσεῖον*—adlectus inter praetorios—quadruplex iudicium—praevaricatio—meritoria balinea—album calculum adicere—scrupulosa—solarium discriptum vel ex aqua—caeli palatum—monogrammos deos.

3. Translate (with notes on italicized words or phrases):

(*a*) Eo ipso die auditam esse *eam pugnam ludis Olympiae* memoriae proditum est.

(*b*) Mater autem est gerendis frugibus *Ceres* tamquam "*Geres*," prima littera immutata, ut a Graecis: nam ab illis quoque Δημήτηρ quasi Γημήτηρ nominata est. Iam qui magna verteret, Mavors, Minerva autem, quae minueret vel minaretur.

[Discuss the derivation of the names of the deities mentioned in the last extract, and of the word *Penates*.)

(*c*) Hic ego non mirer esse quemquam, qui sibi persuadeat corpora quaedam solida atque individua *vi et gravitate* ferri, mundumque effici ornatissimum et pulcherrimum ex eorum corporum concursione fortuita? Hoc qui existimat fieri potuisse, non intellego, cur non idem putet, si innumerabiles *unius et viginti* formae litterarum vel aureae vel qualeslibet aliquo coiciantur, posse ex iis in terram excussis *annales Ennii*, ut deinceps legi possint, effici; quod nescio an ne in uno quidem versu possit tantum valere fortuna.

(*d*) Ac principio terra universa cernatur, *locata in media sede* mundi, solida et globosa et undique ipsa in sese nutibus suis conglobata, vestita floribus, frugibus, quorum omnium incredibilis multitudo *insatiabili* varietate distinguitur. Adde huc fontium *gelidas perennitates, liquores perlucidos* amnium, riparum vestitus viridissimos, speluncarum concavas altitudines, saxorum asperitates; adde etiam reconditas auri argentique venas infinitamque vim marmoris.

4. (*a*) What two explanations of the apparent movement of the fixed stars were given by the older philosophers. (*b*) State Zeno's argument for the divinity of the universe. (*c*) Who was the chief expositor of the Atomic theory? Briefly state his doctrine.

5. Translate at sight:—

C. Plinius Romano Suo S.

[1]Vidistine aliquando Clitumnum fontem? Si nondum (et puto nondum, alioqui narrasses mihi), vide, quem ego (paenitet tarditatis) proxime vidi. Modicus collis adsurgit antiqua cupresso nemorosus et opacus: hunc subter exit fons et exprimitur pluribus venis, sed inparibus, et lato gremio patescit purus et vitreus, ut numerare iactas stipes[2] et relucentes calculos possis. Inde non loci devexitate, sed ipsa sui copia et quasi pondere impellitur. Fons adhuc est, iam amplissimum flumen atque etiam navium patiens. Ripae fraxino[3] multa, multa populo vestiuntur, quas perspicuus

[1] In this letter Pliny describes the source of the Clitumnus, its sudden expansion into a river, and the various attractions of the spot. [2] Stipes, "small coins." [3] fractions, "ash."

amnis velut mersas viridi imagine adnumerat. Rigor aquae certaverit nivibus, nec color cedit. Adiacet templum priscum et religiosum; stat Clitumnus ipse amictus ornatusque praetexta: praesens numen atque etiam atidicum indicant sortes. Nec desunt villae, quae secutae fluminis amoenitatem margini insistunt. In summa nihil erit ex quo non capias voluptatem. Nam studebis quoque; leges multa multorum omnibus columnis, omnibus parietibus inscripta, quibus fons ille deusque celebratur. Plura laudabis, non nulla ridebis; quamquam tu vero, quae tua humanitas, nulla debis. Vale.

B. A. ORDINARY EXAMINATION.

LATIN. { TACITUS.—ANNALS, BOOK I.
JUVENAL.—SAT. VIII. AND XIII.

THURSDAY, APRIL 6TH:—MORNING, 9 TO 12.

Examiners,..... { REV. GORGE CORNISH, M.A., LL.D.
PROF. CROCKET, M.A.

1. Translate:—

(A) Postremo promptis iam et aliis seditionis ministris velut contionabundus interrogabat, cur *paucis centurionibus*, paucioribus tribunis in modum servorum oboedirent, quando ausuros exposcere remedia, nisi novum et nutantem adhuc principem precibus vel armis adirent? satis per tot annos *ignavia* peccatum, quod tricena aut quadragena stipendia senes et plerique *truncato* ex vulneribus *corpore* tolerent. ne *dimissis* quidem finem esse militiae, sed apud vexillum tendentes alio vocabulo eosdem labores perferre, ac si quis tot casus vita superaverit, trahi adhuc diversas in terras, ubi per nomen agrorum uliginee *paludum* vel inculta *montium* accipiant. enimvero militiam ipsam gravem, infructuosam; *denis* in diem *assibus* animam et corpus aestimari; *hinc* vestem arma tentoria, hinc saevitiam centurionum et vacationes munerum redimi. at hercule verbera et vulnera, duram hiemem, exercitas aestates, bellum atrox aut sterilem pacem sempiterna.

(B) Interea manipuli ante coeptam seditionem Nauportum missi obitinera et pontes et alios usus, postquam turbatum in castris accepere, vexilla convellunt, direptisque proximis vicis ipsoque Nauporto, quod municipii instar erat, retinentis centuriones inrisu et contumeliis, postremo verberibus insectantur, praecipua in Aufidienum Rufum praefectum castrorum ira, quem dereptum *vehiculo* sarcinis gravant aguntque primo in agmine, per ludibrium rogitantes an tam immensa onera, tam longa itinera libentur ferret. quippe Rufus diu manipularis, dein centurio, mox castris praefectus, antiquam duramque militiam revocabat, vetus operis ac laboris, et eo inmitior quia toleraverat.

(C) Drusus orto die et vocata contione, quamquam rudis dicendi, nobilitate ingenita incusat priora, probat praesentia; negat se terrore et

minis vinci; flexos ad modestiam si videat, si supplices audiat, scripturum patri, ut placatus legionum preces exciperet. *orantibus* rursum idem Blaesus et L. Apronius, eques Romanus e cohorte Drusi, Iustusque Catonius, primi ordinis centurio, ad Tiberium mittuntur. certatum inde sententiis, cum alii opperiendos legatos atque interim comitate permulcendum militem censerent, alii fortioribus remediis *agendum*: nihil in vulgo modium; terrere, ni paveant; ubi pertimuerint, inpune contemni; dum superstitio urgeat, adiciendos ex duce metus sublatis seditionis auctoribus. promptum ad asperiora ingenium Druso erat: vocatos Vibulenum et Percennium interfici iubet. tradunt plerique intra tabernaculum ducis obrutos, alii corpora extra vallum abiecta *ostentui*.

2. (*a*) Show the grammatical construction of the words in Italics in the above extt. (*b*) Derive and explain the words: manipuli, vexilla, cohors, municipium.

3. Translate the following, explaining the constructions:—(*a*) Nullius flagitii compertum. (*b*) Abolendae infamiae. (*c*) Particeps secretorum. (*d*) Extortum invito senatu. (*e*) Vetus operis ac laboris. (*f*) Centurionem * * * illa morti deposcit.

4. (*a*) State the rules to be observed in changing *Direct* into *Indirect Discourse*. (*b*) In ext. (A) change "Quando ausuros * * perferre" into *direct*. (*c*) *Paucis centurionibus * * tribunis*:—Write an explanatory note on the Roman legion at this period, showing its divisions and subdivisions, and its full complement of men.

5. Translate, Juvenal, Satt. VIII. and XIII:—

(*a*) Quis fructus generis tabula iactare capaci
famosos Equitum cum Dictatore magistros,
si coram Lepidis male vivitur? Effigies quo
tot bellatorum, si luditur alea pernox,
ante Numantinos: si dormire incipis ortu
Luciferi, quo signa duces et castra movebant?

What other reading for *famosos?* *Quo;* explain this form.

(*b*) Dic mihi, Teucrorum proles, animalia muta
quis generosa putet, nisi fortia? Nempe volucrem
sic laudamus equum, facili cui plurima palma
fervet, et exsultat rauco victoria Circo.
Nobilis hic, quocumque venit de gramine, cuius
clara fuga ante alios et primus in aequore pulvis:
sed venale pecus Corythae posteritas et
Hirpini, si rara iugo Victoria sedit.
Nil ibi maiorum respectus, gratia nulla
umbrarum.

Derive *nobilis ibi;* give different interpretations.

(*c*) Maiorum effigies habeant insignia vocis :
ante pedes Domiti longum tu pone Thyestae
syrma vel Antigones seu personam Menalippes,
et de marmoreo citharam suspende colosso.

Syrma ; derive and decline this, and also *personam.*

(*d*) Exemplo quodcumque malo committitur, ipsi
displicet auctori. Prima est haec ultio, quod se
iudice nemo nocens absolvitur, improba quamvis
gratia fallacis Praetoris vicerit urnam.

Exemplo malo ; What case ? *Se judice ;* explain this use of the *Abl.*

(*e*) Praeterea, lateris vigili cum febre dolorem
si coepere pati, missum ad sua corpora morbum
infesto credunt a numine : saxa deorum
haec et tela putant. Pecudem spondere sacello
balantem, et Laribus cristam promittere galli
non audent : quid enim sperare noncentibus aegris
concessum ? vel quae non dignior hostia vita ?

(*e*) *Cristam galli ;* to what equivalent ? *hostia ;* how do you derive this ? Cite the word derived from it in modern use.

(*f*) Sed si cuncta vides simili fora plena querela,
si, decies lectis diversa in parte tabellis,
vana supervacui dicunt chirographa ligni,
arguit ipsorum quos litera gemmaque princeps
sardonychus, loculis quae custoditur eburnis :
ten', o delicias ! extra communia censes
ponendum, quia tu gallinae filius albae,
nos viles pulli, nati infelicibus ovis ?

(*f*) Give interpretations of *vs.* 2. *Chirographa ;* derive and explain : *O delicias ;* what use of the accusative.

6. From what verbs are the following participles formed :—*Suetus, nixus, tortus, insitus, orsus, citus, ortus, fatus, fixus, cretus ?*

B. A. ORDINARY EXAMINATION.

ROMAN HISTORY AND LATIN PROSE COMPOSITION.

THURSDAY, APRIL 6TH :—AFTERNOON, 2 TO 4.

Examiners,..... ..... { REV. GEORGE CORNISH, M.A., LL.D.
PROF. CROCKET, M.A.

(A) *The Twelve Cæsars.*

1. Sketch the condition, socially and politically, of the Roman people at the time of the death of Julius Cæsar, indicating the chief causes that had led to it.

2. The character and policy of Augustus, with their general results to the Empire at large.

3. Military operations in Germany between A. D. 14-20 :—were they successful ?

4. Name the twelve Cæsars in the order of their succession, giving dates.

5. (*a*) Give an account of the contests for the throne in the years A. D. 68-70. (*b*) What important events happened in the reigns of Vespasian and Titus ?

(B) *Latin Prose Composition.*

Translate into Latin :—

The name of Pompey is highly distinguished in Roman history: his exploits are almost incredible; and his eloquence was so great as to excite the admiration of Cicero himself. At the age of twenty-six he was sent into Africa by Sulla, the Consul, to subdue those States which had joined the enemy ; and having routed their forces and slain their generals, he returned to Rome and was allowed a triumph. He then cleared the seas of those pirates, who for many years had captured and destroyed the Roman ships ; and in a very short space of time gained other victories, which it would be tedious to enumerate. In the midst of these successes his wife died ; and he himself was taken ill of a fever at Naples. However, he soon recovered, to the great joy of his country-men, though it has been observed that it would have been well, both for himself and his country, had he been carried off by the disease.

THIRD YEAR HONOURS IN CLASSICS.

GREEK.

WEDNESDAY, APRIL 12TH :—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, M.A., L.L.D.

1. Translate (with an explanatory note where you deem it necessary) :—

Æschylus, Prometheus Vinctus, (A) vss. 246-254 and (B) 1040-1070.

2. (*a*) Set forth as carefully as you can the import of the particles used in the dialogue of ext. (A). (*b*) εἰσορᾶν, —what use of the Infin. ? (*c*) χαλᾷ κακῶν,—construe

κακῶν and supply the ellipsis. (*d*) ῥιπτέσθω—ῥίψειε,—note the difference of moods. (*e*) ξυγχώσειεν, ῥίψειε, —what are the subjects of these verbs? (*f*) παρέσυρας,—what is the metaphor in this? (*g*) προδότας,—what is the supposed political reference? (*h*) ἀπέπτυσα,—what use of the Aorist?

3. Write explanatory notes on :—τύχαι Ἄτλαντος. ἰπούμενος. ἐξωμμάτωσα. ἔς τε Πυθὼ κἀπὶ Δωδώνης. ῥεύματι ἀκοιμήτῳ. Σκύθην οἶμον. ναρθηκοπλήρωτον. ἀπέδιλος. (*c*) Comment on the use by Æschylus of compound words and accumulation of epithets.

4. (*a*) Narrate briefly the legend of Io, and show why this episode is here introduced. How was the person of Io represented on the stage? (*b*) δᾶ, πόποι :—Explain these words. (*c*) Explain the forms σφέ, νίν μίν, σφῷν. (*d*) (1) εἰ γάρ, * * * ἦκεν. (2) ὡς μήτε * * * ἐπεγήθει. (3) τοῦτ' οὐκετ' ἄν πύθοιο. (4) ἔπαυσα μὴ προδέρκεσθαι μόρον :—Explain these usages severally.

5. Give the etymology and meaning of the following, terms :—βρώσιμον, χριστόν, πιστόν, φαρμάκων, κατεσκέλλοντο, κληδόνας δυσκρίτους, ἐνοδίους συμβόλους, δεξιοι εὐωνύμους, σπλαγχνων λειότητα καὶ χροιάν.

4. Translate :—

(B) Sophocles, Antigone, (*a*) vss. 332-375. (*b*) vss. 1048-1063.

5. Derive and explain the term *Stasimon*, and set forth the theme of the above Stasimon, and show how the *Stasima* of this Drama are severally connected, and their bearing on the action of the play. Explain also the term κομμος. The following variants occur in the same ext.; —translate and comment on them: πολεῦον

—πολεύων. περιφραδὴς—ἀριφραδής. παραίρων—παρείρων —παραίνων—γεραίρων. ἀστυνόμους ὀργὰς ἐδιδάξατο: —give different interpretations of this.

6. (*a*) Comment on the use of τίς. (*b*) Write short notes on meaning of:— (*a*) vss. 1078-79. (*b*) 1084-1086. (*c*) 1170-71. (*b*) 1183-85.

7. Translate:—(C) Euripides, Medea, vss. 908-928.

8. (*a*) Comment on the following usages, and illustrate where you can from other authors:—παρεμπολῶντος. τὴν νικῶσαν βουλήν. ὑμῖν δε, παῖδες κ. τ. λ. τὰ πρῶτ' ἔσεσθαι. γυνὴ δὲ θῆλυ. (*b*) Explain the meaning and construction of the following:—(*a*) εἰσῆλθε μ' οἶκτος εἰ γενήσεται τάδε. (*b*) οὐκ οἶδ' ἂν εἰ πείσαιμι. (*c*) κελευσον αἰτεῖσθαι πατρὸς γυναῖκα παῖδας τήνδε μὴ φεύγειν χθόνα. (*d*) ἃ καλλιστεύεται τῶν νῦν ἐν ἀνθρώποισιν.

9. Translate (D), Thucydides Bk. VI., (*a*) Chaps. 27-28, down to τὸν Ἀλκιβιάδην ἐπῃτιῶντο. (*b*) Chap. 53.

10. (*a*) What important political consequences resulted from the events described in the above extt.? (*b*) πριεκόπησαν τὰ πρόσωπα—explain the grammatical usage here (*c*) τὰ μυστήρια,—write a short explanatory note on this (*d*) ἐπὶ ξυνωμοσίᾳ, ἐπὶ Καμαρίνης, ἐπὶ Ἀλκιβιάδην (ext. *b*) Give the exact force of ἐπί. (*e*) ὡς κελεύσοντας,—why the plural? (*f*) τὴν Σ. ναῦν, explain; give the name of the sister-ship.

THIRD YEAR.

GREEK AND LATIN PROSE COMPOSITION.

TUESDAY, APRIL 14TH:—MORNING, 9 TO 12.

Examiners,..... { REV. GEORGE CORNISH, LL.D. A. JUDSON EATON, PH.D.

I. Translate into Greek:—

(A) 1. The citizens were astonished at the shamelessness of the despots, but held in great honour the justice of their own rulers.

2. Unless you do what is right, you will not escape with impunity the punishment that awaits evil-doers.

3. The philosopher said that then only were men prosperous and happy when they did their duty, and were apt to perform honourable actions for the benefit of the State.

4. The market-people came into camp with abundant provisions which they sold to the troops at very high prices.

5. By constantly asserting that he was the son of Zeus he tried to persuade the people that he was a god, but only a few believed him.

6. In a free State no one should have such power as to escape punishment if he transgresses the laws.

(B) In the Persian wars the Greeks had for the first time to fight as one people against a foreign foe. The Greeks beat back the Persians. After this great victory, Greece was safer, and the Greek cities everywhere became more prosperous. One result of the Persian wars was to make the Greeks in Sicily and Asia and all over the world feel that they were one people with the same interests. Another result was to make Athens the most popular and powerful city in Greece. The people of Attica were the most gifted of the Ionian race, and the political importance of Athens now gave a large opening to the Athenian ge ius.

II. Translate into Latin:—

(A)

The Volscians at last advanced to Rome, and encamping near the Fossa Cluilia, five miles from the town, they laid waste the lands of the plebeians round about. Then the Romans were seized with despair, and scarcely retaining courage to defend the walls of the town, did not dare to advance against the Volscians or fight them in the field. They looked for deliverance from the mercy and generosity of their conquerors, and sent the principal senators as ambassadors to Coriolanus, to sue for peace. But Coriolanus answered that, unless the Romans should restore to the Volscians all the conquered towns, peace could not be thought of. When the same ambassadors came a second time, to ask for more favourable conditions, Coriolanus would not even see them. Thereupon the chief priests appeared in their festive robes and with the sacred signs of their office, and tried to calm the anger of Coriolanus. But they strove in vain. At last the noblest Roman matrons came to Veturia, the mother of Coriolanus, and to Volumnia, his wife, and persuaded them to accompany them to the enemy's camp, and with their prayers and tears to save the town.—IRNE.

(B)

The awful news flew to Rome. Consternation and despair seized the people. The city would have been emptied of its population had not the Senate ordered the gates to be closed. Never did that body display greater calmness, wisdom, prudence and resolution. By word and act they bade the people never despair of the republic. Little by little the panic was allayed. Measures were concerted for the defence of the capital, as it was expected that Hannibal would immediately march to Rome. Messengers were sent along the southern military road to see, as Livy pathetically expressed it, "if the gods, touched by one pang of pity, had left aught remaining to the Roman name," and to bring the first tidings of the expected advance of Hannibal. The leader of the Numidian cavalry, Maharbal, urged Hannibal to follow up closely his victory. "Let me advance with the cavalry," said he, "and in five days you shall dine in the capital." But Hannibal refused to adopt the counsel of his impetuous general. Maharbal turned away, and with mingled reproach and impatience, exclaimed, "Alas! thou knowest how to gain a victory, but not how to use one."—MYERS.

THIRD YEAR HONOURS.

LATIN..... ..... { HORACE, *Epistles, Bk. I.* / TERENCE, *Adelphi* and *Phormio*.

FRIDAY, APRIL 14TH:—MORNING, 9 TO 12.

Examiner,.....A. JUDSON EATON, M.A., PH.D.

1. Translate, with brief notes:—

(*a*) Nunc itaque et versus et cetera ludicra pono;
quid verum atque decens curo et rogo et omnis in hoc sum;
condo et compono quae mox depromere possim.
Ac ne forte roges quo me duce, quo lare tuter:
nullius addictus iurare in verba magistri,
quo me cumque rapit tempestas, deferor hospes.
Nunc agilis fio et mersor civilibus undis,
virtutis verae custos rigidusque satelles;
nunc in Aristippi furtim praecepta relabor,
et mihi res, non me rebus, subiungere conor.

(*b*) "Demetri" (puer hic non laeve iussa Philippi
accipiebat) "abi; quaere et refer, unde domo, quis,
cuius fortunae, quo sit patre quove patrono."
It redit et narrat Volteium nomine Menam,
praeconem, tenui censu, sine crimine, notum

et properare loco et cessare, et quaerere et uti,
gaudentem parvisque sodalibus et lare certo
et ludis et post decisa negotia campo.
"Scitari libet ex ipso quodcumque refers; dic
ad cenam veniat."

(*c*) Cum servis urbana diaria rodere mavis,
horum tu in numerum voto ruis; invidet usum
lignorum et pecoris tibi calo argutus et horti.
Optat ephippia bos piger optat arare caballus.
Quam scit uterque libens censebo exerceat artem.

2. Without translating, discuss grammatical peculiarities:—

(*a*) Nos numerus sumus et fruges consumere nati,
sponsi Penelopae nebulones Alcinoique.

(*b*) Vir bonus et sapiens dignis ait esse paratus.

(*c*) Non domus et fundus, non aeris acervus et auri
aegroto domini deduxit corpore febris,
non animo curas: valeat possessor oportet,
si comportatis rebus bene cogitat uti.

(*d*) Iactamus iam pridem omnis te Roma beatum
sed vereor ne cui de te plus quam tibi credas,
neve putes alium sapiente bonoque beatum.

3. Translate, with short notes, where necessary:—

(*a*) Sy. Pecuniam in loco neglegere maxmuum interdumst lucumhui,
Metuisti, si nunc de tuo iure concessisses paululum
Atque adulescenti morigeratus esses, hominum homo stultissume,
Ne non tibi istuc faeneraret. Sa. Ego spem pretio non emo.
Sy. Numquam rem facies: abi, inescare nescis homines, Sannio.
Sy. Credo istuc melius esse: uerum ego numquam adeo astutus fui,
Quin quidquid possem mallem auferre potius in praesentia.
Sy. Age noui tuom animum: quasi iam usquam tibi sint uiginti minae,
Dum huic obsequare. praeterea autem te aiunt proficisci Cyprum.

(*b*) Ph. Mi patrue, salve! De. Salve! sed ubi est Antipho?
Ph. Salvom advenire... De. Credo. Hoc responde mihi.
Ph. Valet, hic est: sed satin omnia ex sententia?
De. Vellem quidem. Ph. Quid istuc? De. Rogitas, Phaedria?
Bonas me absente hic confecistis nuptias.
Ph. Eho! an id succenses nunc illi? Ge. O artificem probum!

DE. Egone illi non succenseam? Ipsum gestio
Dari mihi in conspectum, nunc sua culpa ut sciat,
Lenem patrem illum factum me esse acerrimum.
PH. Atqui nihil fecit, patrue, quod succenseas.
DE. Ecce autem similia omnia: omnes congruunt:
Unum cognoris, omnes noris. PH. Haud ita est.
DE. Hic in noxa est; ille ad defendendam causam adest:
Cum ille est, hic praesto est: tradunt operas mutuas.
GE. Probe horum facta imprudens depinxit senex.
DE. Nam ni haec ita essent, cum illo haud stares, Phaedria.
PH. Si est, patrue, culpam ut Antipho in se admiserit,
Ex qua re minus rei foret aut famae temperans;
Non caussam dico, quin quod meritus sit ferat.

4. Remark on the Metres of Terence. Determine the Metre of the lines in the extracts above, and also that of the following verses:—

Cedo quid portas, obsecro, atque id, si potes, verbo expedi.
Quoi minus nihilo est? quod hic si potes fuisset exorarier.

5. Explain the words—*angiportum, convasassem, edepol, faxo, hariolus, protelet, subcenturiatus, exporge, morigeratus, clanculum.*

THIRD YEAR HONOURS.

LATIN..... { JUVENAL, BKS. III., VIII., X., XIII.
CICERO, *De Imperio Cn. Pompeii.*
TACITUS, *Germania and Agricola.*

FRIDAY, APRIL 21st:—MORNING, 9 TO 12.

Examiner, ...A. JUDSON EATON, M.A., PH.D.

1. Translate, with notes grammatical and explanatory:—

(*a*) Quem enim imperatorem possumus ullo in numero putare, cuius in exercitu centuriatus veneant atque venierint? Quid hunc hominem magnum aut amplum de re publica cogitare, qui pecuniam ex aerario depromptam ad bellum administrandum aut propter cupiditatem provinciae magistratibus diviserit aut propter avaritiam Romae in quaestu reliquerit? Vestra admurmuratio facit, Quirites, ut agnoscere videamini qui haec fecerint.

Quod si Romae Cn. Pompeius privatus esset hoc tempore, tamen ad tantum bellum is erat deligendus atque mittendus; nunc cum ad ceteras summas utilitates haec quoque opportunitas adiungatur, ut in eis ipsis locis adsit, ut habeat exercitum, ut ab eis, qui habent, accipere statim possit, quid exspectamus?

(*b*) Rex Pylius, magno si quidquam credis Homero,
exemplum vitae fuit a cornice secundae,
felix nimirum, qui tot per saecula mortem
distulit atque suos iam dextra computat annos,
quique novum totiens mustum bibit. Oro parumper
attendas, quantum de legibus ipse queratur
fatorum et nimio de stamine, cum videt acris
Antilochi barbam ardentem; cum quaerit ab omni,
quisquis adest socius, cur haec in tempora duret,
quod facinus dignum tam longo admiserit aevo?
Haec eadem Peleus, raptum cum luget Achillem,
atque alius, cui fas Ithacum lugere natantem.

(*c*) Tu vero felix, Agricola, non vitae tantum claritate, sed etiam opportunitate moris. Ut perhibent qui interfuerunt novissimis sermonibus tuis, constans et libens fatum excepisti; tanquam pro virili portione innocentiam principi donares.

Si quis piorum manibus locus; si, ut sapientibus placet, non cum corpore exstinguuntur magnae animae; placide quiescas, nosque, domum tuam, ab infirmo desiderio et muliebribus lamentis ad contemplationem virtutum tuarum voces, quas neque lugeri neque plangi fas est, admiratione te potius, et immortalibus laudibus, et, si natura suppeditet, aemulatu decoremus. Is verus honos, ea coniunctissimi cuiusque pietas. Id filiae quoque uxorique praeceperim, sic patris, sic mariti memoriam venerari, ut omnia facta dictaque eius secum revolvant, famamque ac figuram animi magis quam corporis complectantur; non quia intercedendum putem imaginibus, quae marmore aut aere finguntur; sed ut vultus hominum, ita simulacra vultus imbecilla ac mortalia sunt; forma mentis aeterna: quam tenere et exprimere, non per alienam materiam et artem, sed tuis ipse moribus, possis. Quidquid ex Agricola amavimus, quidquid mirati sumus manet mansurumque est in animio hominum, in aeternitate temporum fama rerum. Nam multos veterum, velut inglorios et ignobiles, oblivio obruet: Agricola, posteritati narratus et traditus, superstes erit.

2. Translate freely, with a brief explanation of any peculiarities of construction or expression:—

(1) Est videre apud illos argentea vasa.

(2) In universum aestimanti, plus penes peditum roboris.

(3) Nec *arare* terram, aut exspectare *annum*, tam facile *persuaseris*, quam *vocare*, et vulnera *mereri*.

(4) Mos est civitatibus ultro ac viritim conferre principibus vel armentorum vel frugum.

(5) Victus voluntariam servitutem adit.

(6) Gerunt et ferarum pelles, proximi ripae negligenter, ulteriores exquisitius, ut quibus nullus per commercia cultus. (Supply the verb in the last clause, and explain its mood.)

3. Write notes on—ego vel Prochytam praepono Suburae—madidam Capenam—verso pollice—trechedipna—differt vadimonia praetor—sportula—dogmata a Cynicis tunica distantia. Cum grege Chaldaeo—uno partam colit asse Minervam—velificatus Athos—pinnirapus—peculium.

4. (*a*) Discuss the evidence, internal and external, for the life of Juvenal; *or* (*b*) Give a short life of Tacitus.

THIRD YEAR.

LIVY AND TRANSLATION AT SIGHT.

TUESDAY, MARCH 30TH:—MORNING, 9 to 12.

Examiner,.....A. JUDSON EATON, M.A., PH.D.

1. Translate:

(*a*) Postero die.....praebebent. XXI. 35.

(*b*) Binis in castris.....animus deesse. XXII. 50.

(*c*) Ad fidem.....de nomine Punico militibus. XXIII. 12.

2. Discuss the construction of *adeundi* (*a*), *metientibus* (*b*), *propior vero* (cf. *propius spem*) (*c*), the use of *binis* (*d*), the case of *pernicie* and mood of *fecissent* (*e*).

3. Remark on the formation of the following words, giving meaning and derivation where possible:—*clepsit*, *necubi*, *contio*, *poteretur*, *praeda*, *manubiae*, *stipendiarius*, *praetor*, *lectisternium*, *auspicium* (cf. *augurium*).

4. Define the following expressions:—*plebei nobiles*, *signum pugnae*, *ver sacrum*, *busta Gallica*, *capitis deminutio*, *sub corona venire*.

5. "Flaminius recens casus Claudiique consulis primo Punico bello memorata navalis clades religionem animo incussit." Explain the allusions, giving dates.

6. Comment on the following passages:—

(*a*) In eos versa peditum acies.....acta est, XXI, 34.

(*b*) Cn Scipio postquam.....amnis pervenit. XXII. 19.

(*c*) Postquam Marcellus ab exercitu.....(to the end of the chapter). XXIII. 31.

7. Discuss any three of these topics:—

(*a*) Hannibal's Route over the Alps.

(*b*) Battle of Cannae.

(*c*) Trustworthiness of Livy's Narrative and its Sources.

(*d*) Language and Style of Livy.

8. Translate (at sight):—

Qui et regnare coepit, et avitae gloriae memor, et quia proximum regnum, cetera egregium, ab una parte haud satis prosperum fuerat, aut neglectis religioribus aut prave cultis, longe antiquissimum ratus sacra publica, ut ab Numa instituta erant, facere, omnia ea ex commentariis regis pontificem in album elata proponere in publico iubet. Inde et civibus otii cupidis et finitimis civitatibus facta spes in avi mores atque instituta regem abiturum. Igitur Latini, cum quibus Tullo regnante ictum foedus erat, sustulerant animos et, cum incursionem in agrum Romanum fecissent, repetentibus res Romanis superbe responsum reddunt, desidem Romanum regem inter sacella et aras acturum esse regnum rati. Medium erat in Anco ingenium, et Numae et Romuli memor; et praeterquam quod avi regno magis necessariam fuisse pacem credebat cum in novo tum feroci populo, etiam quod illi contigisset otium sine iniuria, id se haud facile habiturum: temptari patientiam et temptatam contemni, temporaque esse Tullo regi aptiora quam Numae. Ut tamen, quoniam Numa in pace religiones instituisset, a se bellicae caerimoniae proderentur, nec gererentur solum, sed etiam indicerentur bella aliquo ritu, ius ab antiqua gente Aequiculis, quod nunc fetiales habent, descripsit, quo res repetuntur.

9. Translate (at sight):—

Scipio gravem iam spoliis multarum urbium exercitum trahens, captivis aliaque praeda in vetera castra ad Uticam missis, iam in Carthaginem intentus occupat relictum fuga custodum Tyneta. Abest a Carthagine quindecim milia ferme passuum locus cum operibus tum suapte natura tutus, et qui et ab Carthagine conspici et praebere ipse conspectum in circumfusum mare urbi possit. Inde, cum maxime vallum Romani iacerent, conspecta classis hostium est Uticam a Carthagine petens. Igitur omisso opere pronuntiatum iter signaque raptim ferri sunt coepta, ne naves in terram et obsidionem versae ac minime navali proelio aptae opprimerentur. Qui enim restitissent agili et nautico instrumento aptae et armatae classi naves tormenta machinasque portantes, et aut in onerariarum usum versae, aut ita adpulsae muris ut pro aggere ac pontibus praebere ascensus possent? itaque Scipio—praeter quam in navali certamine solet—rostratis, quae praesidio aliis esse poterant, in postremam aciem receptis prope terram, onerariarum quadruplicem ordinem pro muro adversus hostem opposuit, easque ipsas, ne in tumultu pugnae turbari ordines possent, malis antemnisque de nave in navem traiectis ac validis

funibus velut uno inter se vinculo illigatis compressit, tabulasque superinstravit ut pervium ordinem fecisset, et sub ipsis pontibus intervalla fecit, qua procurrere speculatoriae naves in hostem ac tuto recipi possent. His raptim pro tempore instructis mille ferme delecti propugiatores onerariis imponuntur, telorum missilium, ut quamvis longo certanine sufficerent, vis ingens congeritur: ita parati atque intenti hostium adventum opperiebantur.

THIRD YEAR.

HISTORY AND GENERAL PAPER.

FRIDAY, APRIL 21ST :—MORNING, 9 TO 1.

Examiners, ... { REV. GEORGE CORNISH, LL.D. / A. J. EATON, Ph.D.

(N.B.—Write the answers to A and B on separate papers).

A.

1. (*a*) Sketch the system of Government that prevailed in the Heroic Age. (*b*) What value may be assigned to the Homeric Poems as sources of History.

2. Give a short account of the so-called Tribal Migrations into Greece proper, and of their settlements there.

3. (*a*) How may the comparatively early sending forth of colonies from Greece be accounted for? (*b*) What relation did the colony sustain to the parent-State? (*c*) Point out resemblances or differences between Grecian and English colonies.

4. Define the geographical position, and show the commercial importance severally, of *Trapezus*, *Massilia*, *Cyrene*, *Cyzicus*.

5. Sketch the causes of the *Ionic Revolt*; trace its important political consequences.

B.

1. Give a summary of the War between Rome and Carthage concerning Sicily.

2. Sketch the struggle between Rome and the Samnites.

3. Define the following terms: cives sine suffragio—capitis deminutio—praetor peregrinus—praefectus annonae—comitia curiata,—socii navales—lectisternium.

4. What materials had Livy for the history of early Rome, and what criticisms have been passed on their value?

5. State briefly (*a*) the origin of the Latin Alphabet, and (*b*) the mode of producing books in Rome.

6. (*a*) Discuss the derivation and spelling of: *dirimo, redeo, antiquus, debeo, Hercules, Ianus, ager, rettuli, conicio, hiemps, maxumus, vin'.* (*b*) Give a few examples of the so-called *syntactic compounds.* (*c*) Explain the origin of the letter G.

B.A. EXAMINATIONS FOR HONOURS IN CLASSICS.

(I)—GREEK POETS.

TUESDAY, APRIL 10TH:—MORNING, 9 TO 12.

Examiner,..... REV. GEORGE CORNISH, M.A., LL.D.

I. Translate, adding an explanatory note where you deem it necessary:—

(A) Pindar Olympic Odes:—

(*a*) Ode III., vss. 31–45. (*b*) IX., vss. 21-39. (*c*) XIII., vss. 105–115.

2. (*a*) Comment on the meaning of ἀδεῖν εὔχομαι. νεοσίγαλον. ἀγλαόκωμον. Ἑλλανοδίκας Αἰτωλὸς ἀνήρ. Ὀρθωσίᾳ. κεινὸς εἴην. (*b*) Explain βοηλάτᾳ διθυράμβῳ. ἐνδομάχας ἀπέκτωρ. Translate: —τῶν δὲ μελλόντων τετύφλωνται φραδαί. πολλὰ δ' ἀνθρώποις παρὰ γνώμαν ἔπεσεν, ἔμπαλιν τέρψιος.

3. Translate the following extt.:—(*a*) πένθος δὲ ἐπίτνει βαρὺ κρεισσόνων πρὸς ἀγαθῶν.

(*b*) ὁ μὲν πλοῦτος ἀρεταῖς δεδαλμένος φέρει τῶν τε καὶ τῶν καιρόν.

(*c*) Αἶδα τοι λάθεται ἄρμενα πράξαις ἀνήρ.

(*d*) ἄμαχον δὲ κρύψαι τὸ συγγενὲς ἦθος.

4. Translate, Theocritus, I :—(*a*) II., vss. 1–15. (*b*) IV., vss. 1–14. (*c*) V., vss. 6–20.

5. (*a*) καταθύσομαι,—parse. δωδεκαταῖος,—explain the formation and meaning. ἴυγξ,—what was the custom here referred to? καναφόρος,— explain. (*b*) πείσαι κεν καὶ τοὺς λύκος αὐτίκα λυσσῆν,—how do you interpret? (*c*) βαύσδει,—how formed? διαθρύπτεται,—give the derivation and literal meaning. τὸν ἀπὸ γραμμᾶς κινεῖ λίθον,—explain the reference and the meaning of the proverb, giving an English proverb as its equivalent.

6. Write a short account of the poetry of Theocritus, dwelling on its leading characteristics. What poets in English may be compared with him?

7. Translate, Hesiod, Works and Days:—(*a*) vss. 246-260. (*b*) vss. 662-675.

8. (*a*) Explain the title, Ἔργα καὶ Ἡμέραι, and show the division of this poem. (*b*) Point out words in Hesiod that had the Digamma.

9. (*a*) Indicate the Dialect of the following words, severally, and give their equivalents in Attic:—νίκη, παρῆσθευ, αἶκα, ἐκτάσα, ψέ, ἧς, λασθῆμεν, δίδοι, ἐνθών, τὼς κάνθαρος, ὑφίητι, ὥπερ, θᾶσαι, ἐμίν, τυ, ἀείδες. (*b*) Resolve the following Crases:—ὠξ, τῶὐβούλοιο, κεἰφ, κἠπει, χὡς, κἤμ', ὅκχ', χἀμῖν.

(II)—GREEK DRAMATISTS.

THURSDAY, MARCH 30TH:—MORNING, 9 TO 12.

Examiner, ... REV. GEORGE CORNISH, M.A., LL.D.

1. Translate (with an explanatory note where you deem it necessary):—

Æschylus, Prometheus Vinctus, (A) vss. 246-254 and (B) 1040-1070.

2. (*a*) Set forth as carefully as you can the import of the particles used in the dialogue of ext. (A). (*b*) εἰσορᾶν, —what use of the Infin.? (*c*) χαλᾷ κακῶν,—construe κακῶν and supply the ellipsis. (*d*) ῥιπτέσθω—ῥίψειε,—note the difference of moods. (*e*) ξυγχώσειεν, ῥίψειε,—what are the subjects of these verbs? (*f*) παρέσυρας, what is the metaphor in this? (*g*) προδότας,—what is the supposed political reference? (*h*) ἀπέπτυσα, what use of the Aorist?

3. Write explanatory notes on:—τύχαι Ἄτλαντος. ἰπούμενος. ἐξωμμάτωσα. ἔς τε Πυθὼ κἀπὶ Δωδώνης. ῥεύματι ἀκοιμήτῳ. Σκύθην οἶμον. ναρθηκοπλήρωτον. ἀπέδιλος. (*c*) Comment on the use by Æschylus of compound words and accumulation of epithets.

4. Translate:—

(C) Sophocles, Antigone, vss. 332-375.

5. (*a*) Analyse the metres of strophe *a* and strophe *β* in ext. (C) (*b*) Derive and explain the term *Stasimon*, and set forth the theme of the above Stasimon, and show how the *Stasima* of this Drama are severally connected, and their bearing on the action of the play. (*c*) The following variants occur in the same ext.; translate and comment on them:—(1) πολλά τε—τά. (2) πολεῦον—πολεύων. (3) περιφραδὴς—ἀριφραδής. (4) παραίρων—παρείρων—παραίνων—γεραίρων. (5) ἀστυνόμους ὀργὰς ἐδιδάξατο:—give different interpretations.

5. Translate:—(D) Euripides, Medea, vss. 908-928.

6. (*a*) Comment on the following usages, and illustrate where you can from other authors:—παρεμπολῶντος, τὴν νικῶσαν βουλήν. ὑμῖν δε. παῖδες κ. τ. λ. τὰ πρῶτ' ἔσεσθαι. γυνὴ δὲ θῆλυ. (*b*) Explain the meaning and con-

struction of the following :—(*a*) *εἰσῆλθε μ' αἶκτος εἰ γενήσεται τάδε.* (*b*) *οὐκ οἶδ' ἂν εἰ πείσαιμι.* (*c*) *κέλευσον αἰτεῖσθαι πατρὸς γυναῖκα παῖδας τήνδε μὴ φεύγειν χθόνα.* (*d*) *ἃ καλλιστεύεται τῶν νῦν ἐν ἀνθρώποισιν.*

7. Point out the excellences and the defects of Euripides as a Dramatic poet, as compared with Sophocles.

8. Translate :—(E) Aristophanes, The Frogs, vss. 759-778.

9. Write a short note on the Old Comedy, pointing out its position and function in the political and social life of Athens.

10. Comment on the meaning of the following ;—

μελισσονομοι. Παλαμήδης βέβληκε δύο κυβω καὶ τέτταρα. σκολίων Μελήτου. παρὰ τοὺς ἰχθῦς. ὦ 'τάν. προυσελοῦμεν βασάνιξε.

(III)—GREEK HISTORIANS.

WEDNESDAY, APRIL 5TH :—MORNING 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, M.A., LL.D.

1. Translate (adding an explanatory note where you deem necessary in any of the extt. given below) :—

(A) Herodotus, Book IX, chap. 107.

2. (*a*) Ext. (A) *χάριτα αὐτῷ τιθέμενος* :—illustrate and explain the metaphor here used. *ἁρπάζει μέσον* :—express in Latin. (*b*) Distinguish between the force of *ὡς* and *ἅτε* as adjuncts of the Participle in such expressions as *ὡς συμβαλέοντες Μαρδονίῳ* and *ἅτε τοῦ ὕδατος στερηθείσης τῆς στρατίης.*

(*c*) Explain the construction of the following extracts :—*πρὸς τῶν πολεμίων ἄγχιστα ἐοῦσα.* (*c*) *ἔφευγον οὐδένα κόσμον. ἐδίωκον ὡς ποδῶν ἕκαστος εἶχον.* (*d*) Give Attic equivalents of :—*ὑπήσειν, ἀναπεπτέαται, ἐξεληλυθεσαν ἀνελοίατα, ἐδικαίευν, συλλεγήναι, ἔσκον, εἰδεῖεν, ἐώθεσαν, ἐῶν.*

3. Translate :—(B) Thucydides, Bk. VI., chaps. 27 and 28. (C) Bk. VII., Chap. 8.

4. (*a*) *ἡ τετράγωνος ἐργασία* :—Give the import of the article as here used. (*b*) Describe the Hermae, and point out in what the heinousness of the offence done to them consisted. (*c*) *εἴ τις οἶδεν* :—why the Indicative Mood? (*d*) *ἐπὶ ξυνωμοσίᾳ ἀπὸ μετοίκων* :—note the use of these prepositions. (*e*) *ὑπολαμβάνοντες καὶ νομίσαντες* :—why this difference of Tense? (*f*) Chap. 8, Bk. VI. *ὡς * * * μισθον* :—what is the import of *ὡς* and what does it here qualify? (*g*) *ἐκκλησία καθ' ὅτι χρὴ * * * ἐς τὸν ἔκπλουν* :—show the construction. (*h*) Explain the terms :—

(1) *διάβροχοι.* (2) *θαλασσευουασι.* (3) *διαψῦξαι.* (4) *ἐπωτίδες.* (5) *παρεξειρεσία.* (6) *ἀντήριδες.* (7) *Σπαρτιάτην.* (8) *Νεοδαμώδεις.* (9) *Εἵλωτας.* (10) *ναῦν μυριοφόρον.*

5. Translate :—(D) Xenophon, Hellenics, Bk. I., chap. 7, §§ 16-19, inclusive.

6. (*a*) In ext. (D) point out ellipses and supply them after *ὅτι ἔπεισαν*, and before *ὅτι ἐπέταξαν*, and after *οὔκ.* (*b*) In what respects were the trial and execution of the Generals unconstitutional? (*c*) Name those that suffered death.

(IV)—GREEK PROSE WRITERS.

MONDAY, APRIL 17TH:—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, M.A., LL.D.

1. Translate, adding an explanatory note where you deem it necessary:—

(A) Demosthenes, De Corona, page 260;—Βούλομαι τοίνυν ἐπανελθεῖν * * πρότερον συντελής.

2. (*a*) Enumerate the *ordinary* and the *extraordinary* λειτουργίαι at Athens, dwelling on the institution and development of the τριηραρχία. (*b*) Write short explanatory notes on:—προπηλακισμον. σκώμματα. ἐν τοῖν δυοῖν ὀβολοῖν. αὐτεπαγγέλτους. οὐκ ἐν Μουνυχίᾳ ἐκαθεζετο. κάθαρμα. Ἔμπουσαν.

3. Translate:—

(B) Æschines, Contra Ctesiphontem, §§ 225–227.

4. (*a*) ἐπιστολὰς ψευδεῖς,—what were these letters probably? (*b*) βασάνους,—derive and explain, illustrating from The Frogs. (*c*) τελευτήσαντος,—supply the subject. (*d*) τὰ ἔνατα,—describe these.

5. (*a*) Characterise the style of Æschines' oratory, and his method of conducting the case against Ctesiphon. To what causes may his failure be attributed? It has been conjectured that this speech was revised by Æschines after the reply to it had been delivered:—on what grounds?

6. (C) Translate, Plato, De Republica, Books I. and II.:—

(*a*) Bk. I., Cap. 1, down to πάνυ οἰκείους; and Bk. II., Chap. 4 to δοτέον οὖν * * * τοιούτοις εἶη.

7. (*a*) Characterise the narrative style of Plato as exemplified by ext. (*a*). (*b*) ἁπλοῦν,—derive this word ; give its equivalent in Latin and comment on its meaning.

8. (D) Translate, Aristotle, The Poetics ; — (*a*) Chap. 10. (*b*) Chap. 24, §§ 1–3, inclusive (Ed. Oxon.).

9. A short account of this treatise, with its editors and commentators.

10. Define briefly the following terms :—ποιητική, ἐποποιία, μίμησις, ῥυθμῷ καὶ μέλει καί μέτρῳ, ἐπεισόδιον, πρόλογς, τραγῳδία.

(V)—LATIN POETS.

WEDNESDAY, APRIL 19TH :—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, M.A., LL.D.

1. Translate (adding an explanatory note where you may deem it necessary on any peculiar form or construction in any of the extt.) :—

I. (A) Plautus, Aulularia ; (*a*) II., 1 ; vss. 1-15. (*b*) IV., 4 ; vss. 11-24.

2. (1) Comment on the forms *med, tuaï, mussari, eo, sis, quin, cavillam, sucophantias, ambas.* (2) Point out peculiarities of Syntax in Plautus ; to what causes may they be mainly attributed ? (3) What about the Prologues in Plautus, and the prologue to this play in particular ?

3. (*a*) What are the principal metres used, and from what are they derived ? In what respects generally do the metres of Plautus differ from those of Terence. (*b*) Write down the original form of the *Imbica dipodia*, and give the scale of the *Iambic Senarius.* (*c*) Scan :—

Ego Lar sum familiaris ex hac familia.

Credo aurum inspicere volt ne subruptum siet.

4. Translate, Terence, Adelphi ; (*a*) II. 3. (*b*) V. 9 ; vss. 1-14.

5. (*a*) Give the etymology of :—*demum, ellum, foras, frugi, edepol, hodie, seorsum.* (*b*) Discuss the meaning of (1) Obsonare cum fide. (2) Quod prolubium ? (3) Suo *sibi* gladio hunc jugulo. (4) Non posteriores feram. (5) Horresco *pultare* hasce :—quidnam foris *crepuit ?*

6. Translate carefully the following extracts from Horace, Epistt. Bk. I, noting any grammatical peculiarities or varieties of reading or punctuation :—

(*a*) Virtus est vitium fugere et sapientia prima
Stultitia caruisse.

(*b*) Si curatus inaequali tonsore capillos,
Occurri rides.

(*c*) Abi, quaere, et refer, unde domo, quis,
Cuius fortunae, quo sit patre quove patrono.

(*d*) Fidis offendar medicis, irascar amicis,
Cur me funesto properent arcere veterno.

(*e*) Strenua nos exercet inertia ; navibus atque
Quadrigis petimus bene vivere.

(*f*) Ne studio nostri pecces, odiumque libellis
Sedulus importes, opera vehemente minister,

(*g*) Sit spes fallendi, miscebis sacra profanis ;
Nam de mille fabae modis cum surripis unum,
Damnum est non facinus mihi pacto lenius isto.

7. Derive and give the meaning of :—Coenacula, fenore, piacula, subucula, apricum, plagas (note the quantity of the penultimate), remigium, putre, catellam, catellum.

8. Translate, Juvenal, (*a*) Sat. VIII., vss. 245-253. (*b*) Sat. X, vss. 168-178.

(1) Write short explanatory notes on the historical references in (*b*). (2) *Graecia mendax* :—is this fair ?

9. Translate from Persius :—

(*a*) Sat. V., vss. 19-29. Derive *equidem*, *camena*, *fibra*.

(*b*) Ib., vss. 66-72. Parse *egerit*.

(*c*) Sat. vi., vss. 10-17. *Cor Enni* :—to what equivalent in point of expression ? Why is *cor* used ?

(*d*) Ib., 25-33.

(*e*) Ib., vss. 38-40. Note different interpretations of *maris expers*.

10. Characterise the briefly style of Persius.

VI.—LATIN PROSE WRITERS.

THURSDAY, APRIL 20TH:—MORNING, 9 TO 12.

Examiner,..... REV. GEORGE CORNISH, M.A., LL.D.

1. Translate the following extracts into English, adding a brief comment where any peculiar form or construction seems to you to require it:—

(A) Tacitus, Annals, (*a*) Book I., chap. 62, and (*b*) Book II., chap. 34.

2. In ext. (A) comment on the force of the Tense of *abire*, *cedere* and *relinquebat*. *Augusta*:—What was her name? *Adfuturum*:—Explain the legal import of this. *Tempus atque iter ducens*:—comment on the form and meaning of this phrase. In (*a*) note *sextum annum*. *extruendo tumulo*. *gratissmo murere*.

3. Translate (B) Tacitus, Histories I. Chap. 50.

4. (*a*) Explain:—(1) Tesserarium Speculatorum. (2) Optionem (3) Manipulares. (4) Praeire sacramentum. (5) Urgentibus mathematicis. (6) Excubias agenti. (7) In agmine, in itinere, in stationibus. (8) Bis et vicies millies sestertium. (9) Publica expectatio. (10) Comitia imperii transigit.

(*b*) "Duos omnium mortalium impudicitia, iguavia, luxuria, deterrimos:"—Is this characterization too severe?

5. (*a*) *Epistulas*: Singular or plural in meaning, and why? (*b*) Mediolanum ac Novariam et Eporediam et Vercellas; Poenino itinere; Raeticis jugis; Lugdunenses Viennensesque; Treviri et Lingones; give modern names. (*c*) "Poeninus:"—is this the correct orthography? Give the derivation of the word, and point out its occurrence in Celtic names of mountains. (*d*) Distinguish between *Vienna* and *Vindobona*.

6. Translate (C) Livy, Bk. XXII., chap. 56.

7. (1) *Nundinantem*; give the derivation and meaning of this word. (2) *Cum in hanc sententiam pedibus omnes issent*;—explain this, stating what you know generally of the mode of procedure in the Roman Senate. (3) *Ut sacrum anniversarium; Cereris intermissum sit*; when was this festival celebrated?

8. (*a*) Give an account of the writings of Livy, stating what have been lost and what have come down to us. (*b*) What authorities had he at command for the history of the Second Punic War? How did he use them? (*c*) Point out archaic forms of words in chap. 10, Bk. XXII., and give later equivalents for them

9. Translate (D) Cicero, de Officiis, Bk. III., chap. 19, from "Fimbriam consularem" to end. Explain the phrases *quibus * * * mices. Sponsionem fecisset.*

10. Translate (E) Cicero, De Imp. Cn. Pomp., chap. 12, §§ 34-36.

11. What were the political circumstances in which this oration was delivered?

VII.—GREEK PROSE COMPOSITION.

WEDNESDAY, APRIL 12TH;—MORNING, 9 TO 12.

Examiner, ...REV. GEORGE CORNISH, M.A., LL.D.

Translate into Greek (accented) :—

The Iliad means the Poem of Ilion or Troy, a city of Mysia in the north-west of Asia Minor. The subject of the poem is one chapter of events in the ten years' siege of Troy by the Greeks. Paris, son of Priam, King of Troy, had carried off Helen, the fairest of women, wife of Menelaus, King of Sparta. Helen had been wooed by many suitors, and her father Tyndar had bound them all by oath to join in avenging that man whom she should marry, if she were taken from him by force. So Agamemnon, King of Mycenæ, called together these suitors and other chieftains from all parts of Greece, and they sailed with many ships to besiege Troy. For ten years they besieged it in vain, though the Trojans dared not come out and fight pitched battles; for there was a hero in the Greek army so terrible that not even Hector, the greatest of the Trojan warriors, could stand before him. This hero was Achilles, whom the sea-goddess Thetis had borne to Peleus, King of Phthiôtis, in Thessaly. But at last, in the tenth year of the siege, Achilles, suffered a grievous affront from the King Agamemnon, who took away from him his prize, the captive damsel Briseis. Then Achilles was angry, and said that he would fight for the Greeks no more, and withdrew from the army to his tent by the seashore.

According to a Greek epigram, Homer was claimed as son by Smyrna, Chios, Colophon, Ithaca, Pylus, Argos, Athens. But all the best evidence connects Homer with Smyrna, an originally Æolian city which afterwards become Ionian. An ancient epithet for him is *Melesigenes*, "son of Meles," the name of a stream which flowed through old Smyrna on the border between Æolis and Ionia. This is significant when we remember that the Iliad is an Ionian poem on Æolian themes. The unknown author of the Homeric "Hymn to Apollo of Delos speaks of himself as a blind old man living in Chios. The ancients thought that this hymn was by "Homer, and thus the tradition of Homer's blindness was perpetuated. The little island Ios, one of the Cyclades, claimed to have Homer's grave.

VIII.—LATIN PROSE COMPOSITION.

FRIDAY, APRIL 7TH :—MORNING, 9 TO 12.

Examiner, ... REV. GEORGE CORNISH, M.A. LL.D.,

Translate into Latin :—

Nevertheless, there had been no such days as those in the city since Brennus marched through the open gates and camped in the Forum one hundred and seventy-four years before. The games of Ceres could not be celebrated, for it was not lawful to celebrate them with tears; but who in Rome was not weeping in those bitter days? The wails of the women drowned the voices of the senators in the Curia. And as if to add to the horror of the scene, the Sibylline books again said, that a Greek man and woman and a Gaulish man and woman must be buried alive in the cattle market; and it was done. The awful whispers began to reach the city that the old enemy, Samnium, and the more recent enemies in Lucania and Bruttium, the Greek cities, and even Apulia, were throwing off their allegiance; and it was murmured that in Capua, the Carthaginian party was gaining ground. Men looked down the Appian Way, and expected to see the flying Numidian cavalry; but there came instead some of the 20,000 prisoners sent by Hannibal on parole, to propose a ranson and Carthalo to propose a peace. The heart of the invader must have sunk within him, when the prisoners returned with the news that Roman gold could not be wasted in purchasing *dedicitii*, men who could surrender in battle; the Romans preferred to purchase with their money slaves to fill the legions, and already was the new dictator, M. Junius Pera, at the head of 25,000 men. As to peace, the Romans now as fifty years before could not treat with an enemy while he was on the soil of Italy. It is this inflexible resolution, of which the immovable iron colonies are but the material expression, which still fills us with admiration, which must then have filled Hannibal with despair. It is the fact, that in the face of this, Hannibal still held his ground in Italy for, thirteen years; that makes us call Hannibal the greatest of ancient generals.

IX. GENERAL PAPER.

TUESDAY, APRIL 18TH :—MORNING, 9 to 12.

Examiner, ... REV. GEORGE CORNISH, M.A., LL.D.

1. (*a*) Derive and define the term *Dialect*. To what causes may dialectic varieties be assigned? (*b*) Name the dialect of the following, and give it in equivalent Attic :— Μίνδαρος ἀπεσσούα. πεινῶντι τῶνδρες. ἀπορίομες τί χρὴ δρᾶν. (Xen. Hellenics).

2 (*a*) Discuss the question of the original seat of the Aryan race, nothing recently-published views thereupon. (*b*) Name the leading languages of the Aryan family. (*c*) Define, as applied to languages, and cite instances, the terms:—*Cognate, Derived, Agglutinative, Inflectional* and *Analytical.*

3. (*a*) Give the principal general rules for accentuation in Greek, and Latin and English. (*b*) Accentuate the following, with the proper *spiritus*:—

Αμαζονες γαρ Αρεως μεν το παλαιον ησαν θυγατερες, οικουσαι δε παρα τον Θερμωδοντα ποταμον, μοναι μεν ωπλισμεναι σιδηρω των περι αυτας πρωται δε των παντων εφ ιππους αναβασαι, οις ανελπιστως δ' απειριαν των εναντιων ηρουν μεν τους φευγοντας, απελειπον δε τους διωκοντας ενομιζοντο δε δια την ευψυχιαν μαλλον ανδρες η δια την φυσιν γυναικες· πλεον γαρ εδοκουν των ανδρων ταις ψυχαις διαφερειν η ταις ελλειπειν.

4. State the general principles regulating such grammatical usages as: — λέγειν λόγον. ἀκούειν λόγου. μεμνῆσθαί τινος. θνητοῖσιν ἀνάσσειν. ὅπλοις χρῆσθαι ἡγεῖσθαί τινος and ἡγεῖσθαί τινι.

5. Classify the uses of the Middle Voice. Are there any traces of a Middle voice in Latin, and how is the want of that voice provided for in Latin.

6. Trace back to their Greek or Latin originals the words:—*atom, barbarian, dogma, epigram, epitaph, liturgy, protoplasm, helot, posthumous, fragile, emperor, lieutenant, tag, prevaricate.*

7. (*a*) Give an account of the origin and development of Dramatic contests at Athens. (*b*) Describe the steps that had to be taken in putting a play on the stage. (*c*) Did women appear on the stage or among the audience? (*d*) Comment on the theatre as a State-institution. How were the expenses of management met?

8. Write a general account of Mahaffy's history of Greek poetry prior to the Dramatists.

9. What form of literary composition was said to be indigenous among the Romans? What was the metre chiefly in use before the introduction of Greek metres?

10. Explain the following:—Fescenninæ, Saturæ, Mimæ, Atellanæ Fabula Palliata, Togata, Prætextata, Contaminatio.

X.—HISTORY OF GREECE AND ROME.

FRIDAY, APRIL 21ST:—MORNING, 9 TO 12.

Examiner, ...REV. GEORGE CORNISH, M.A., LL.D.

1. (*a*) Sketch the system of Government that prevailed in the Heroic Age. (*b*) What value may be assigned to the Homeric Poems as sources of History?

2. Give a short account of the so-called Tribal migrations into Greece Proper and their settlements there.

3. To what causes may be assigned the rise of Despotism in certain States and its early decay? Derive and define the word *Tyrant*.

4. (*a*) How may the comparatively early sending forth of colonies from Greece be accounted for? (*b*) What relation did the colony sustain to the parent-state? (*c*) What analogies or contrasts between Grecian and English colonies may be noted? (*d*) Define the geographical situation, and show the commercial importance of *Trapezus*, *Massilia* and *Cyrene*.

5. The Ionic Revolt; its political importance and consequences.

6. Trace the policy and influence of Persia among the Grecian States during the Peloponnesian War.

7. (*a*) Characterise the policy and conduct of Sparta and Thebes, severally, in the affairs of Greece. (*b*) Sketch the main causes that led to the political decadence of Athens as a Greek power.

8. (*a*) Write a note on the system of Land-tenure and Agriculture under the early Roman Republic. (*b*) Explain the terms *Adsidui*, *Proletarii* and *Precarii*.

9. (*a*) Show the political importance of the institution of the Tribunate of the Commons. (*b*) What were the chief functions and powers of the office? (*c*) What abuses in after-times did these lead to?

10. The political and social objects of the Gracchi, and the causes of their failure.

11. In what ways did the Punic Wars contribute to the extension of the dominion of Rome? and, further, to the well-being of mankind, then and afterwards?

MATHEMATICS AND NATURAL PHILOSOPHY.

FIRST YEAR.

GEOMETRY.—ARITHMETIC.

MONDAY, APRIL 10TH:—MORNING, 9 TO 12.

Examiners,..... { ALEXANDER JOHNSON, M.A., LL.D / G. H. CHANDLER, M.A.

Assistant Examiner,.....H. M. TORY, B.A.

Write the answers on three separate sets of papers headed A, B and C respectively, to correspond to the questions.

A.

1. Find a fourth proportional to three given lines.

2. The bisector of the vertical angle of a triangle divides the base into segments which are proportional to the conterminous sides.

(*a*) Prove this also of the external bisector.

3. The velocity of light is 186,000 miles a second; if that of a cannon ball be 1,600 feet a second, find the ratio, expressed in decimals, of the latter to the former.

4. Find the area of an equilateral triangular field of which one side is 380 feet long.

B.

5. Define *duplicate ratio*, and prove that similar triangles are to one another in the duplicate ratio of their homologous sides.

(*a*) The area of one triangle is $20\frac{1}{4}$ times that of a similar triangle; what is the ratio of the homologous sides?

6. Find a point which is equally distant from the three sides of a triangle.

(*a*) Find, in a given line, a point which is equally distant from two given lines. Show that there are, in general, two such points. When is there one only? When none?

7. A twenty per cent. solution is made by dissolving 20 lbs. of salt in 80 lbs. (8 gallons) of water. How many gallons of water must now be added in order to make a 5 per cent. solution?

8. Assuming that the area of a circle is half the products of the lengths of the radius and circumference, find in feet the diameter of a circular field containing one acre.

C.

9. Equal straight lines in a circle are equally distant from the centre; and conversely those which are equally distant from the centre are equal to one another.

(*a*) In a circle whose diameter is 10 inches, a chord is drawn, which is 8 inches long. If another chord be drawn, at a distance of three inches from the centre, show whether it is equal to the former or not.

10. To describe an isosceles triangle, having each of the angles at the base double the third angle.

(*a*) If the lengths of the equal sides be unity, find the length of the base.

11. Equal parallelograms which have one angle of the one equal to one angle of the other have their sides about the equal angles reciprocally proportional.

12. A man rows down a river 18 miles in 4 hours with the stream, and returns in 12 hours; find the rate at which the stream runs and at which he rows.

FIRST YEAR.

TRIGONOMETRY—ALGEBRA.

TUESDAY APRIL 11TH:—MORNING, 9 TO 12.

Examiners, ... { ALEXANDER JOHNSON, M.A., LL.D. / G. H. CHANDLER, M.A.

Assistant Examiner, ... H. M. TORY, B.A.

Write the answers on three separate sets of papers headed A, B and C respectively, to correspond to the questions.

A.

1. Prove that the area of any triangle is equal to $\frac{1}{2}\ bc \sin A$.

(*a*) Calculate *from this formula* the area in square yards of an equilateral triangle, whose side is 10 feet long.

2. Prove that the cosine of an angle is equal to the cosine of its supplement, but with an opposite sign.

3. Simplify

$$\frac{x^2 - 2}{x^3 - 1}; \quad \frac{x^3 + 6x^2 + 11x + 6}{x^3 + 5x^2 + 6x}$$

4. A number of two digits is equal to seven times the sum of its digits, and the digit in the tens' place is greater by four than the digit in the units' place. Find the number.

B.

5. Solve the equations :

(1) $3(x+3)^2 + 5(x+5)^2 = 8(x+8)^2$,

(2) $(x+3)^3 \quad x^3 + 9$,

(3) $\sqrt{x} - \sqrt{x-8} = \frac{2}{\sqrt{x-8}}$.

(4) $16\left(x^2 + \frac{1}{x^2}\right) = 257$.

6. Prove that the difference of the squares of any two consecutive odd numbers is divisible by 8. (Algebraical proof required).

7. If $\sin A = \frac{4}{5}$, find $\tan A + \sec A$.

8. Show that :

$$\tan^2\theta \sec^2\theta - \sec^2\theta + 1 = \tan^4\theta,$$

$$\tan\frac{A+B}{2} - \tan\frac{A-B}{2} = \frac{2\sin B}{\cos A + \cos B},$$

$$\frac{1+\sin\theta}{1-\sin\theta} \qquad \tan^2\left(\frac{\pi}{4} + \frac{\theta}{2}\right).$$

C.

9. Define a radian : find its value in degrees. Reduce 75° to radians and .75 radians to degrees.

10. Prove the following relations :

(*a*) $\sin^2 A + \cos^2 A = 1$

(*b*) $\tan A + \cot A = \sec A \operatorname{cosec} A$

(*c*) $\cot^2 A - \cot^2 B = \frac{\sin^2 B - \sin^2 A}{\sin^2 A \sin^2 B}$

(*d*) $\cos 2A = 1 - 2\sin^2 A$

11. Solve the following equations :—

(*a*) $\sqrt{x+10} + \sqrt{x-1} = 1$

(*b*) $\frac{x-1}{x+1} + \frac{x+1}{x-1} = \frac{5x}{x^2-1}$

(*c*) $x - y = 2$
$x^3 - y^3 = 98.$

12. (*a*) Rationalize the denominator of $\frac{3+2\sqrt{5}}{3-2\sqrt{5}}$

(*b*) Simplify $\sqrt{512} - \sqrt{50} - \sqrt{98}$

(*c*) Simplify $\sqrt{8} \times \sqrt[3]{4} \times \sqrt[4]{6}$.

SECOND YEAR.

MECHANICS.

TUESDAY, MARCH 7TH:—MORNING, 10 TO 12.

Examiner, ... ALEXANDER JOHNSON, M.A., LL D.

1. Define force and mass. Given volumes of lead, wood and water are said to have equal masses; what is meant by this? Distinguish clearly between mass and weight.

2. A cubic foot of copper (sp. gr. 8.9) moves with a velocity of 1407 yards per minute. Find its momentum, the volume being measured in cubic inches. State the unit of momentum in giving your answer.

(*a*) If its velocity increase suddenly to 2,000 yards per minute, what is the measure of the force that has acted on it?

3. If a force of 3 pounds acting for one second on a given body produce on it a velocity of .317 feet per second; find the mass of the body, stating the unit of mass adopted.

4. State the Third Law of Motion, and explain it by example.

5. Find the velocity acquired in 9 seconds by a body falling in Paris ($g = 32.182$).

6. The velocity acquired by a body in running down an inclined plane is equal to the velocity acquired in falling down the heights of the plane.

7. Two forces of 10 and 12 dynes respectively, whose directions make an angle of 60° with one another, act on the same point of a body; find their resultant.

8. Define a poundal.

INTERMEDIATE EXAMINATION.

GEOMETRY—ARITHMETIC.

MONDAY, APRIL 10TH:—MORNING, 9 TO 12.

Examiners .... } ALEXANDER JOHNSON, M.A., LL.D.
JOHN COX, M.A.

Assistant Examiner.....H. M. TORY, M.A.

Write the answers on three separate sets of papers headed A, B and C, respectively, to correspond to the questions.

1. Inscribe a circle in a triangle. (*a*) If there be any three lines not meeting in the same point, show that four circles can in general be drawn which shall each touch all the three lines, and find their centres. Consider the case where two of the lines are parallel.

2. The rectangle contained by the diagonals of a quadrilateral inscribed in a circle is equal to the sum of the rectangles contained by its opposite sides.

Prove that the rectangle contained by two parallel chords AB, DC, of a circle ABCD is equal to the difference of the squares on AC and AD.

3. Multiply .002 by 1.045, and divide the result by .001.

4. If the area of a circle be equal to the rectangle under the radius, and a line equal to the semi-circumference, and the volume of a circular cylinder be equal to the product of the area of the base by the height, find the weight in lbs of the mercury in a cylindrical jar whose diameter is 4 inches and height 8 inches, mercury being assumed to be $13\frac{1}{2}$ times as heavy as water, and a cubic foot of water weighing 1000 ounces.

B.

5. Draw a straight line from a given point, without the circumference of a given circle, which shall touch the circle.

From a point without a circle draw a line such that the part of it included within the circle may be of a given length (less than the diameter of the circle).

6. Divide a given straight line into two parts, so that the rectangle contained by the whole and one of the parts may be equal to the square on the other part.

7. The cylinder of a hydraulic lift is 6 feet high and 1 foot 8 inches in diameter, and it has to be filled with water for every complete journey. If the water rate is 15 cents per 1000 gallons, and a cubic foot contains 6.25 gallons, find the cost per journey, and the annual cost at an average of 100 journeys per day, excluding Sundays.

8. Find the square root of .00868624 and of $\frac{144.5}{98}$.

A square recreation ground is bordered by a gravel path 9 feet wide, and this *path* covers three acres. Find the extent of the ground.

C.

9. The opposite angles of a quadrilateral figure inscribed in a circle are together equal to two right angles.

10. If the vertical angle of a triangle be bisected by a straight line which also cuts the base, the segments of the base shall have the same ratio which the other sides of the triangle have to one another.

11. On a given straight line to describe a rectilineal figure similar and similarly situated to a given rectilineal figure.

12. Express .43 of 8s. 3d as the decimal of .01 of £9.

INTERMEDIATE EXAMINATION.

TRIGONOMETRY—ALGEBRA.

TUESDAY, APRIL 11TH:—MORNING, 9 TO 12.

Examiners..... { ALEXANDER JOHNSON, M.A., LL.D.
JOHN COX, M.A.
H. WALTERS, B.A.

Assistant Examiner,..... H. M. TORY, B.A.

Write the answers on separate sets, of papers headed A, B, C, respectively, to correspond to the questions.

A.

1. Find the values of cos 30°, tan 135°, and sin 15°, and prove the formulae:—

(1) $\cos A - \cos B = -2 \sin \frac{A+B}{2} \sin \frac{A-B}{2}$

(2) $\frac{\sin A + \sin 2A + \sin 3A}{\cos A + \cos 2A + \cos 3A} = \tan 2A$

2. Define a logarithm. State and prove the properties of logarithms which are used for the multiplication, division and extraction of roots of numbers.

3. The sides of a triangle are 155 feet, 210 feet and 270 feet respectively. Calculate the angle opposite the side which is 155 feet long.

4. Show that $a^2 + b^2 + c^2 = (a + b + c)^2$ if

$$\frac{1}{a} + \frac{1}{b} + \frac{1}{c} = 0.$$

5. Find two fractions whose sum is $\frac{5}{6}$ and whose difference is equal to their product.

B.

6. Prove that in any triangle

$$\cos A = \frac{b^2 + c^2 - a^2}{2bc}$$

and $\sin \frac{A}{2} = \sqrt{\frac{(s-b)(s-c)}{bc}}$ where $2s = a + b + c$.

7. In a triangle $A\ B\ C$, BC is 404 yards, B is 58° 19′, and C is 44° 37′. Find the angle A, and the length of the perpendicular AD drawn from A upon BC.

8. (1) $$\frac{x-4}{x-5} - \frac{x-2}{x-3} = \frac{2x-7}{x-4} - \frac{2x-3}{x-2}$$

(2) $$\frac{a-x}{x-b} + \frac{x-b}{a-x} = \frac{13}{6}$$

(3) $$\left.\begin{aligned} x^2 &= y + 12 \\ y^2 &= x + 12 \end{aligned}\right\}$$

C

9. A and B ran a mile race. In the first heat B receives 12 seconds start and is beaten by 44 yards. In the second heat B receives 165 yards start and arrives at the winning post 10 seconds before A. Find the time in which each can run a mile.

10. Prove $$\frac{a+b}{a-b} = \frac{\tan \frac{1}{2}(A+B)}{\tan \frac{1}{2}(A-B)}$$

In a triangle of $a = 516$; $b = 219$; $C = 98°\ 54'$ find A, B, C.

11. From a ship at sea it is found that the angle which a flagstaff on the top of a cliff subtends is 38′; the elevation of the cliff is 14°; the length of the flagstaff 24 feet. Calculate the ship's distance from the base of the cliff, and also the height of the cliff.

12. Solve the following equations :—

(*a*) $\frac{3x+1}{4} - 2(6-x) = \frac{5x-4}{7} - \frac{-2}{3}$

(*b*) $3y + \frac{9}{x} + 6 = 0 \quad y + \frac{5}{x} = 8$

(*c*) $\frac{2x-1}{2x+1} + \frac{13}{11} = \frac{3x+5}{3x-5}$

13. Find continued product of $\sqrt{10}$, $\sqrt[3]{200}$, $\sqrt[4]{50}$; and simplify

$$\frac{15+14\sqrt{3}}{15-2\sqrt{3}}$$

THIRD YEAR.

MECHANICS—HYDROSTATICS.

WEDNESDAY, APRIL 5TH :—MORNING, 9 TO 12.

Examiner,.....ALEXANDER JOHNSON, M.A., LL.D.
Assistant Examiner,.....H. M. TORY, B.A.

Write the answers on two separate sets of papers headed A and B respectively to correspond to the questions.

A

1. Newton defines mass by reference to volume and density ; it is also defined by reference to force ; state both definitions, and show that they give the same numerical results on the C. G. S. system.

(*a*) Define the units of *length*, *velocity*, *cceleration*, *mass*, *force*, *work*, in the gravitational, absolute and C. G. S. systems.

2. () State and explain the Law of Universal Gravitation.

(*b*) Show that the resultant attraction of the earth considered as a sphere on an external particle will pass through the centre of the earth,

(*c*) If the earth were to shrink to half its present diameter, what would be the weight of a man who weighs 150 lbs. under the present conditions.

3. A railway carriage weighing 7 tons, moving at the rate of 30 miles per hour, travels in the arc of a circle, whose radius is 500 yards. calculate the horizontal pressure of these rails on the wheels.

4. Describe Nicholson's hydrometer.

(*a*) If the standard weight is 20 grammes, find the sp. gr. of a solid such that the weights required to bring the instrument to the standard position are 11 grammes when in the upper pan and 14 grammes when in the lower pan.

5. If 100 cubic inches of a gas whose pressure is 29.5 be mixed with 150 cubic inches of another gas at the same temperature whose pressure is 13.2, calculate the pressure of the mixture if it occupy a volume of 300 cubic inches—state and explain the principles on which the calculation is founded, proving a formula, if you employ one.

6. If the volume of the receiver and leading-tube of an air-pump be three times that of the pump, calculate the elastic force of the air in the receiver after the 10th stroke, the height of the barometer being 30 inches.

B.

7. Find the kinetic energy of a cannon ball of 150 lbs. weight moving with a velocity of 1,600 feet per second.

8. In the inclined plane, find the ratio of the power to the weight when the power is parallel to the plane.

9. A man swims across a river, and in 40 seconds he swims 20 yards; in the same time the current of the river has carried him 15 yards down stream, how far is he from his starting point after 40 seconds?

10. State Boyle's law for the pressure of a gas. (*a*) Two cubic centimetres of air are measured at atmospheric pressure. When introduced into the vacuum of a barometer they depress the mercury which previously stood at 76 centimetres and occupy a volume of 15 cubic centimetres. By how much has the mercurial column been depressed?

11. A tumbler is pushed mouth downward under water until it is half filled with water. Find the depth of the tumbler below the surface of the water.

12. A lump of metal is known to consist of silver and gold, but it is not known how much is gold and how much is silver. The metal weighs 20 grams in air, and 18.7 in water. How much gold is there in the mixture? (sp. gr. of gold = 19.3, sp. gr. of silver = 10.5.)

THIRD YEAR.

ASTRONOMY.—OPTICS.

TUESDAY, APRIL 11TH:—MORNING, 9 TO 12.

Examiners, ... { ALEXANDER JOHNSON, M.A., LL.D.
JOHN COX, M.A.

Write the answers on two separate sets of papers headed A and B respectively, to correspond to the questions.

A.

1. State the facts you are acquainted with that will account on physical grounds for the spheroidal form of the Earth.

2. Explain the cause of an eclipse of the Moon, illustrating your statement by a diagram. Why have we not an eclipse every month? In a total eclipse, which side, eastern or western, of the Moon is first darkened? Explain why.

3. How are the showers of meteors in August and November accounted for

4. How is it shown experimentally that the colours of bodies belong, not to the bodies themselves, but to the light which falls on them?

5. Find the principal focus of a plano-convex lens of glass ($\mu = \frac{3}{2}$).

6. The distance of the incident focus of a thin lens from the lens is a mean proportional between the distances of the incident focus from the conjugate focus, and from the principal focus of rays coming in the opposite direction.

B.

7. Describe and account for the red prominences seen in a total eclipse of the Sun.

8. Describe the apparent motion of the Moon among the stars during a lunation, and explain her phases.

If the Moon rises simultaneously with a star of the same declination state roughly what will be the difference in their times of setting. Which will set first?

9. Give a short account of the planet Mars, explaining the reasons for special interest in recent observations of him.

10. Find a formula for the position of the geometrical focus of a pencil of diverging rays after reflection at a concave spherical mirror.

An eye looks into a concave mirror of 10 inches focal length from a distance of 30 inches. Where, and how large will be the image it sees of itself? Will it be inverted?

11. Prove that in refraction the deviation of the ray increases with the angle of incidence.

Hence, or otherwise, shew that in passing through a prism or lens a ray is on the whole bent away from the thinner towards the thicker part; and that consequently the focal length of a convex lens is negative, and of a concave positive.

12. Describe the Compound Microscope.

B.A. ORDINARY EXAMINATION.

MECHANICS AND HYDROSTATICS.

MONDAY, APRIL 10TH :—MORNING, 9 TO 12.

Examiners, ... { ALEXANDER JOHNSON, M.A., LL.D.
JOHN COX, M.A.
H. WALTERS, B.A.

Write the answers on two separate sets of papers headed A and B respectively to correspond to the questions.

A

1. The length l of a pendulum becomes l' from a change of temperature; investigate a formula giving the change in the number of vibrations in a day. (*a*) Calculate the retardation in one day produced in a brass seconds pendulum by an increase of 1° Fah., the coefficient of expansion $\left(\frac{l'-l}{l}\right)$ being $\frac{1}{96,000}$.

2. Steam engines whose total horse-power was 1310 were employed in pumping water from the shaft of a colliery; how many gallons of water could they raise per hour from a depth of 73 fathoms?

3. Describe the Burton pulley of the second kind, and find what power would be required, if there were four movable pulleys, to sustain a weight of 17 tons, 12 cwt., neglecting friction, the rigidity of the cord and the weight of the blocks.

4. If the diameter of the piston of a suction pump be 3 inches, and the height of the water in the head of the pump 20 feet above the well. Calculate the pressure on the piston.

5. Find a formula for determining the specific gravity of a mixture of two liquids whose volumes and specific gravities are known.

6. State the laws which govern the change in volume of a gas whose temperature and pressure vary, and write down a formula derived from them. (*a*) If 20 cubic inches of air, whose temperature is 56° and elastic force 28.8 inches, be expanded to 25 inches by the application of heat, and if the elastic force become 31 inches; calculate the temperature.

B

7. In uniformly accelerated motion show that $s = \frac{1}{2}$ ft. 2 .

A body moving from rest with constant acceleration describes 50 feet in the first 5 seconds of its motion; what distance does it describe in the first 7 seconds of its motion, and with what velocity is it moving at the end of the 7 seconds?

8. Distinguish between *mass* and *weight*. What are the grounds for asserting that mass is proportional to weight?

A certain force acting on a mass of 10 lbs. for 5 seconds produces in it a velocity of 100 feet per second. Compare the force with the weight of 1 lb., and find the acceleration it would produce in 1 ton.

9. A body is in equilibrium under the action of three forces whose directions are not parallel. State fully the conditions of equilibrium.

A heavy uniform beam rests with one end on the ground and the other pressing against a smooth vertical wall. Shew by a figure how to determine the direction of the resultant force acting on the foot of the beam.

10. Weights of 1, 2, 3, 4 lbs. are placed at the angular points A, B, C, D of a square ABCD. Find the distance of their centre of gravity from the centre of the square.

11. What is meant by the specific gravity of a substance? A body floats with one-tenth of its volume above the surface of pure water. What fraction of its volume would project above the surface if it were floating in a liquid of specific gravity 1 25?

12. Describe the common Air-pump. In exhausting a certain receiver, after 10 strokes of the pump the mercury in the gauge stands at 20 inches, the barometer being at 30 inches. At what height will the mercury in the gauge stand after 20 more strokes?

B.A. ORDINARY EXAMINATION.

ASTRONOMY AND OPTICS.

TUESDAY, 11TH APRIL :—MORNING, 9 TO 12.

Examiners..... ..... { ALEXANDER JOHNSON, M.A., LL.D.
JOHN COX, M.A.

Write the answers on two separate sets of papers headed A and B respectively, to correspond to the questions.

A

1. Why is the interval between two meridian passages of the Sun greater than that of a fixed star? What two causes make it variable? Define :—(1) a mean solar day, (2) 12 o'clock, (3) equation of time.

2. Assuming the Moon's horizontal parallax to be 57′ 6″ and the Earth's radius to be 3963 miles, calculate the distance of the Moon.

3. Define latitude, and describe any one method of finding it for a given place.

(*a*) Recent observations lead to the conclusion that the latitude of a place *shifts by* $\frac{1}{3}$ *of a second* in the course of a year, owing to meteorological causes; explain the meaning of this statement.

4. Describe the Astronomical Telescope and find its magnifying power.

5. State and prove the principle of Hadley's Sextant. Describe the instrument.

6. A bright ball 4 inches in diameter, is suspended in front of a convex mirror of 11 inches radius, at a distance of 14 inches; find the position of the image and its size.

B.

7. State very briefly the principles of any two methods by which the distance of the Sun from the Earth may be determined.

8. Explain the terms Ecliptic, First point of Aries, Right Ascension, Declination. Determine roughly the position in the sky of the First point of Aries at 3 o'clock in the afternoon of the shortest day in Montreal.

9. Taking the synodic period of Jupiter and the Earth at 398 days, find the periodic time of Jupiter. If Jupiter and Venus are evening stars, and stationary, which way will each begin to move?

10. State the Laws of Refraction, and find the geometrical focus of a pencil of diverging rays incident directly on a concave spherical refracting surface.

11. A sphere of gla : ($\mu = \frac{3}{2}$) is silvered at the back. Show that an eye placed close to the glass will see an image of itself $\frac{3}{5}$ of the natural size.

12. Explain the terms *Dispersion*, *Dispersive Power*, *Irrationality of Dispersion*.

The refractive indices of one medium for three particular rays of the spectrum are 1.628, 1.642, 1.660 respectively; those of another medium for the same rays are 1.525, 1.533, and 1.541. Show that these values exhibit a difference of dispersive power, and also irrationality of dispersion.

EXPERIMENTAL PHYSICS.—LIGHT AND HEAT.

FRIDAY, 7TH APRIL :—MORNING, 9 TO 12.

Examiners, ... } ALEXANDER JOHNSON, M.A., LL.D.
JOHN COX, M.A.

1. How are the intensities of two lights compared by Bunsen's photometer? Describe it.

2. Explain the origin of the dark lines in the Solar Spectrum.

3. What is meant by the *interference* of light? Describe any experiment exhibiting it.

4. State the mechanical equivalent of heat on the centigrade scale, and calculate the amount of heat developed in one hour in a factory in which 1.2 horse-power is consumed in overcoming friction.

5. Calculate the temperature on the centigrade scale which corresponds to—20° Fah.

6. Find the weight of steam at 700° centigrade necessary to melt a block of ice at 0° weighing 100 lbs., assuming the latent heat of steam and water to be 540 C and 80 C respectively.

7. Explain the use of the weight thermometer in determining the coefficient of expansion of mercury relative to glass.

If the coefficient of *linear* expansion for steel be .0000116, find the increase in volume of a steel sphere (radius 10 inches) when its temperature is raised 300°.

8. State the laws connecting the change of volume of a gas with changes of pressure and temperature.

If the volume of a gas at 740 mm. pressure and 15° C be 1000 CC., what will it be at 700 mm. pressure and 80° C?

9. How much heat will escape in an hour from the walls of a room if their area be 48 square metres, their thickness 30 centimetres, their conductivity .015, the internal temperature 15° C, and external temperature 0° C ?

10. What is meant by saying that Carnot's engine is *reversible* ? Prove that a reversible engine is a perfect engine.

If the temperatures of the boiler and condenser be 200° C and 30° C respectively, what is the theoretically possible efficiency ?

11. What is the difference between common and plane-polarized light ? Explain any ways of producing and detecting the latter.

12. Describe carefully the apparatus you would require and the mode in which you would proceed to determine *any two* of the following :—

(*a*) The specific gravity of a lump of copper.

(*b*) Its specific heat.

(*c*) The rate of evaporation of a liquid.

(*d*) The value of gravity at a place.

(*e*) The focal length of a convex lens.

(*f*) The wave length of a bright line in the spectrum of a given substance.

EXPERIMENTAL PHYSICS—ELECTRICITY AND SOUND.

FRIDAY, 7TH APRIL :—MORNING, 9 TO 12.

Examiners, ... { ALEXANDER JOHNSON, M.A., LL.D. / JOHN COX, M.A.

1. Describe the principle of Thomson's quadrant electrometer, illustrating it by a diagram.

2. State and explain Ohm's Law. Define the units, ohm, volt, ampere.

(*a*) 20 Grove's cells are joined in series, and the circuit is completed by a wire whose resistance is 12 ohms. If the E. M. F. of each cell be 1.8 volts and the internal resistance 0.3 ohms, calculate the strength of the current.

3. Describe Oersted's experiment, showing a connection between electricity and magnetism.

(*a*) State the rule by which the direction of movement of the needle can be predicted.

4. State the physical causes on which the *pitch* and the *intensity* of musical tones depend.

5. Describe Lissajous' method of exhibiting the composition of vibrations.

6. State the laws of the transverse vibrations of strings, relating to the length, the thickness, the tension and the density of the string.

7. What arrangements would you make to protect a building from lightning? Give your reasons, and account as far as you can for cases in which ordinary means have apparently failed.

9. Give some account of the magnetic properties of iron and steel which you consider most important in the construction of a dynamo.

10. Two musical notes differ by the interval of a *Fifth*. On what physical fact is this found to depend? Give, if you can, the corresponding facts for all the tones of a major scale of one octave.

11. Explain the cause of Beats, and describe any method of exhibiting them experimentally.

12. Describe carefully the apparatus you would require and the mode in which you would proceed to determine *any two* of the following.

(*a*) The ratio of the resistances of two nearly equal coils of rather short and thick wire.

(*b*) The figure of merit of a d'Arsonval Galvanometer.

(*c*) The E. M. F. of a Daniell's Cell.

(*d*) The temperature co efficient of a magnet.

(*e*) The rate of vibration of a given tuning fork.

HONOUR EXAMINATIONS IN MATHEMATICS.

FIRST YEAR.

THEORY OF EQUATIONS.—ALGEBRA.

FRIDAY, APRIL 21ST :—MORNING, 9 TO 12.

Examiner,..... ALEXANDER JOHNSON, M.A., LL.D.
Assistant Examiner,.....H. M. TORY, B.A.

A.

1. Find the positive root (to one decimal place) of the equation

$$2x^3 - 85x^2 - 85x - 87 = 0$$

2. In passing continuously from a value $a - h$ of x a little less than a real root a of the equation $f(x) = 0$ to a value $a + h$ a little greater, the polynomials $f(x)$ and $f^1(x)$ have unlike signs immediately before the passage through the root, and like signs immediately after.

3. Find the three cube roots of unity.

4. Find the equation whose roots are those of $4x^3 - 2x^2 + 7x - 3 = 0$ each increased by 2.

5. If a, b, c, etc., are the roots of the equation $f(x) = 0$, prove that

$$f^1(x) = \frac{f(x)}{(x-a)} + \frac{f(x)}{(x-b)} + \frac{f(x)}{(x-c)}$$

6. Find the sum to n terms of the series

$$1^2 + 3^2 + 5^2 + 7^2 + \text{etc.}$$

B.

7. Every equation of an even degree whose last term is negative has at least two real roots, one positive the other negative.

8. Solve the equation $x^3 - 5x^2 - 16x + 80 = 0$,
the sum of two roots of the equation being equal to zero.

9. Solve the equation $x^5 + x^4 + x^3 + x^2 + x + 1 = 0$.

10. In any equation $x^n + p_1 x^{n-1} + p_2 x^{n-2} + \ldots + p_{n-1} x + p_n = 0$, if the first negative term be $-p_r x^{n-r}$, and if the greatest negative coefficient be p_k then $\sqrt{p_k} + 1$ is superior limit of the positive roots.

11. Resolve into partial fractions $\dfrac{x^2 + 10x + 13}{(x+1)(x^2 + 5x + 6)}$

12. If four times the number of permutations of n things 3 together is equal to five times the number of permutations of $n-1$ things 3 together, find n.

FIRST YEAR.

GEOMETRY:—*Second Paper.*

WEDNESDAY, APRIL 19TH:—AFTERNOON, 2 TO 5.

Examiner, ... ALEXANDER JOHNSON, M.A., LL.D.
Assistant Examiner, ... H. M. TORY, B.A.

Write the answers on two separate sets of papers, A and B.

A

1. Prove that the locus of the pole of a variable tangent to a given circle, with respect to its centre as origin, is a concentric circle.

2. If through any fixed point a transversal be drawn across any number of given straight lines and circles, and a point be taken on it such that the reciprocal of its distance from the fixed point is equal to the excess of the sum of the reciprocals of the intercepts between the given point, and the lines and circles on one side of it over the sum of the reciprocals of the intercepts on the other side of it; Find the locus of the point of section.

3. The anharmonic ratio of four points in a straight line is equal to that of the pencil formed by their four polars.

4. If a hexagon be inscribed in a circle, the intersections of the three pairs of opposite sides lie in the same line.

5. Given base and ratio of sides of a triangle, find the locus of the vertex.

6. If a transversal cut the sides of a triangle, the segments of any side are in a ratio compounded of the ratios of the segments of the other sides

B

7. If any transversal cut a pencil of four rays, the ratio of the rectangle under the whole transversal and its middle segment to the rectangle under its extreme segments is constant.

8. If a line drawn across four parallel lines is cut harmonically, shew that all straight lines drawn across them are cut harmonically.

9. Given six points on the circumference of a circle; find a seventh point on the circumference, such that the harmonic ratio of it and three of the points taken in an assigned order shall be equal to the anharmonic, ratio of it and the other three points taken in an assigned order.

10. In a given triangle describe another triangle, so that its sides shall pass through three given points within the triangle.

11. If through any point inside or outside a circle two secants be drawn the straight lines joining the extremities of the chords intersect on the polar of that point.

12. Describe a circle touching three given circles.

FIRST YEAR.

GEOMETRY :—*First Paper.*

WEDNESDAY, APRIL 19TH :—MORNING, 9 TO 12.

Examiner, ...ALEXANDER JOHNSON, M.A., LL.D.
Assistant Examiner,.....H. M. TORY, B.A.

Write the answers on two separate sets of papers, A and B.

A

1. Given the vertical angle, the perpendicular on the base, and the difference of the base angles ; construct the triangle.

2. Through a given point, draw a straight line so as to form with the side of a given angle a triangle of given area.

3. In a given circle inscribe a triangle whose sides shall pass through three given points.

4. Describe a circle touching a given circle and a given straight line at a given point.

5. Through a given point within a given angle, draw a straight line cutting the legs of the angle, so that it shall be divided at the point in the given ratio.

6. A and B are the two fixed points without a circle ; find a point P on the circumference such that the sum of the squares on A P. PB. may be a minimum.

B

7. Describe a circle which shall bisect three given circumferences

8. Inscribe in a given triangle a parallelogram of given area not exceeding half the given triangle.

9. Given the vertical angle of a triangle in magnitude and position, and the sum of the reciprocals of the sides ; prove that the base always passes through a fixed point on the bisector of the vertical angle.

10. Given the base and vertical angle of a triangle, find the locus of the centre of the inscribed circle and of the centres of the three escribed circles.

11. The sum of the squares on the sides of any quadrilateral is equal to the sum of the squares on the two diagonals together with four times the square on the line joining the middle points of the diagonals.

12. Given the base and the difference of the two sides of a triangle, find the locus of the foot of the perpendicular from either end of the base on the bisector of the internal vertical angle.

SECOND YEAR.

CALCULUS.

FRIDAY, APRIL 21ST :—MORNING, 9 TO 12.

Examiner, ... ALEXANDER JOHNSON, M.A., LL.D.

1. Distinguish between *differential* and *differential coefficient*. Define the latter considered as a limit.

2. Investigate a formula for the differentiation of the product of three

a. If $y = \frac{u}{v}$ where u and v are functions of x, find $\frac{dy}{dx}$.

3. If u be a function of a y and y be a function of x find $\frac{du}{dx}$

4. Find the differential coefficients of $\sin z$, $\log z$, e^z where z is a function of x.

5. Differentiate $y = \sin(1 + x^2)$, $y = \sin(\sin x)$

$$y = \sin \frac{-1 \quad x}{\sqrt{1+x}} \qquad y = \log \sqrt{\frac{a \cos x - b \sin x}{a \cos x + b \sin x}}$$

6. Define infinitesimals of the first, second and third order. Prove that when the arc of a circle is an infinitely small quantity of the first order, the difference between the length of the arc and its chord is an infinitely small quantity of the third order.

7. If the difference between two quantities be infinitely small in comparison with either of them, prove that the ratio of the quantities becomes unity in the limit.

8. Prove Leibnitz's theorem for finding the n^{th} differential coefficient of the product of two functions of x (u and v), viz :

$$y^{(n)} = u\,v^{(n)} + n\,u'\,v^{(n-1)} + \frac{n\,(n-1)}{1.2}\,u''\,v^{(n-2)} + \text{etc.}$$

where $v^{(n)}$ indicates the n^{th} diff. coeff. of v, etc.

9. Derive Maclaurin's theorem from Taylor's theorem and expand $\cos x$

10. Find the integrals:—

$$\int \frac{\log x\, dx}{x} \quad \int \frac{dx}{x^2 - a^2} \quad \int \frac{dx}{\sqrt{x^2 \pm a^2}} \quad \int \frac{dx}{\sqrt{ax - x^2}}$$

11. Integrate $\frac{d\theta}{\sin\theta}$; $\frac{d\theta}{a + b\cos\theta}$; $\sin^2\theta \cos^2\theta\, d\theta$.

12. Find the integrals

$$\int \frac{dx}{(1+x^2)\ (1-x^2)^{\frac{1}{2}}} \quad \int \frac{dx}{x^2(1+x^2)^{\frac{1}{2}}} \quad \int \frac{1-x}{1+x} dx$$

SECOND YEAR.—TRIGONOMETRY.

WEDNESDAY, APRIL 19TH:—AFTERNOON, 2 TO 5.

Examiner, ... ALEXANDER JOHNSON, M.A., LL.D.

1. Prove that the function $\cos\frac{2r\pi + \theta}{n}$ can only have n different values if successive integral values be assigned to n.

2. Prove Demoivre's theorem

$$(\cos\theta \pm i \sin\theta)^m = \cos m\theta \pm i \sin m\theta.$$

where $i = \sqrt{-1}$; when m is a negative whole number.

3. Assuming Demoivre's theorem, prove

$$\cos m\theta = \cos^m\theta - \frac{m(m-1)}{1.2} \cos m-2\theta \sin\theta^2 + \&c.,$$

and show how many terms there will be in the series according as m is odd or even.

(*a*) Hence show that $\cos 5\theta = \cos^5\theta - 10\cos^3\theta \sin^2\theta + 5\cos\theta \sin^4\theta$

4. Prove Euler's formulae

$$\cos\theta = \tfrac{1}{2}\left\{ e^{i\theta} + e^{-i\theta} \right\}$$

$$\sin\theta = \frac{1}{2i}\left\{ e^{i\theta} - e^{-i\theta} \right\}$$

5. Prove $\tan\frac{1}{2}A = \pm\sqrt{\frac{2\sin A - \sin 2A}{2\sin A + \sin 2A}}$

$$\tan 2A = \frac{2\sin A}{\cos 3A + \cos A};$$

$$\sin A + \sin 2A + \sin 3A = \sin 2A\,(3 - 4\sin^2\tfrac{1}{2}A).$$

6. If A, B, C be the angles of a triangle, prove
$\cot \frac{1}{2} A \cot \frac{1}{2} B \cot \frac{1}{2} C = \cot \frac{1}{2} A + \cot \frac{1}{2} B + \cot \frac{1}{2} C$.

7. Calculate the numerical value of the base e of the Napierian system of logarithms, viz, 2.7182818.

8. Prove that in the Napierian system

$$\log u = 2 \left\{ \frac{u-1}{u+1} + \frac{1}{3} \left(\frac{u-1}{u+1} \right)^3 + \frac{1}{5} \left(\frac{u-1}{u+1} \right)^5 + \&c. \right\}$$

9. Calculate by any method the value of the ratio of the circumference of a circle to its diameter to five decimal places.

SECOND YEAR.

ANALYTIC GEOMETRY.

WEDNESDAY, APRIL 19TH:—MORNING, 9 TO 12.

Examiner,..... .....ALEXANDER JOHNSON, M.A., LL.D.

1. Using the general equation of a conic, prove that if through any point two real lines can be drawn to meet the curve at infinity, parallel lines through any other point will meet the curve at infinity.

2. Form the equation of the conic, making the intercepts a, a' and b, b' in the axes.

3. Find the condition that

$$h x + k y = 1$$

should touch the ellipse

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1.$$

4. Prove that the difference of the squares of any pair of conjugate diameters of an hyperbola is constant.

5. If the normal of any point of an ellipse cut both the axes, prove that the rectangle under the segments is equal to the square of the conjugate semi-diameter.

6. Prove that the locus of the foot of the perpendicular let fall from either focus on the tangent to an ellipseis the circle described with the axis major as diameter.

7. Find the co-ordinates of the intersection of the two tangents at the points $x' y'$, $x'' y''$ to the parabola $y^2 = p x$.

8. Find the equation of the circle which touches the axes at distances from the origin $= a$.

9. Find the conditions that the general equation of the second degree referred to oblique co-ordinates should represent a circle.

10. Given vertical angle and sum of sides of a triangle, find the locus of the point where the base is cut in a given ratio.

11. Find the equation of the line drawn through the intersection of the lines

$Ax + By + C = 0$, and $A\ x + B'y + C' = 0$ parallel to the axis of x.

12. Find the lengths of the perpendiculars from each vertex on the opposite side of the triangle formed by the points (2, 1), (3, — 2), (—4, —1).

(*a*) Find the equations of the same perpendiculars,

(*b*) Prove they meet in a point.

THIRD YEAR.

ASTRONOMY.

FRIDAY, APRIL 21ST :—MORNING, 9 TO 12.

Examiner, ... ALEXANDER JOHNSON, M.A., LL.D.

1. Investigate any method for determining the instant when the sun crosses the equator.

2. How is the obliquity of the ecliptic ascertained by observations at the solstices? If the observation be made when the right ascension of the sun is $90 \pm a$, where a is a small quantity and x be the corresponding small correction for the obliquity, prove

$$\tan^2 \frac{a}{2} = \frac{\sin x}{\sin (2\delta + x)}$$

3. Prove the equations connecting the true, the mean and the eccentric anomalies in an elliptical orbit, viz :—

(1) $\tan \frac{\theta}{2} = \sqrt{\frac{1+e}{1-e}} \tan \frac{u}{2}$

(2) $u = nt + e \sin u$

4. State and prove Lagrange's theorem for the expansion of any function of z in ascending powers of y if

$$z = x + y\ \phi\ (z)$$

where x and y are independent variables.

5. Apply Lagrange's theorem to the development of u in question 3, viz.:

$$u = nt + e \sin nt + \frac{e^2}{2} \sin 2nt + \frac{e^3}{8} (3 \sin 3nt - \sin nt)$$

6. Find a formula for determining the time of the year when the twilight is shortest at a given place.

7. Investigate a formula for determining the sun's azimuth at a given time of a given day.

8. In the case of a lunar eclipse if λ be the latitude of the moon at the instant of opposition, m and p the moon's horary motions in longitude and latitude respectively, s the sun's horary motion in longitude, t the time after opposition, and r the distance of the centres of the moon and shadow prove

$$r = \sqrt{(\lambda - p\,t)^2 + (m - s)^2\,t^2}$$

(*a*) Deduce the circumstances of an eclipse from this formula.

9. In latitude 24° 30′ N, in the forenoon the true altitude of the sun's centre was found to be 33° 20′, when its declination was 6° 47′ 50″ S, find the apparent time of observation.

10. If the sun's longitude be 79° 13′ 1.8″ calculate its declination and right ascenion, the obliquity of the ecliptic being 23° 27′ 34″.0.

THIRD YEAR.

DYNAMICS.

WEDNESDAY, APRIL 19TH:—MORNING, 9 TO 12.

Examiner,.....ALEXANDER JOHNSON, M.A., LL.D.

1. A body acted on by a central force revolves in a circle, find the law of the force when the centre of force is on the circumference.

2. A body is revolving in an elliptic orbit round a centre of force in the focus; prove that the velocity at any distance r is given by the equation

$$v^2 = \frac{2\mu}{r} - \frac{\mu}{a}$$

3. In a central orbit prove $F = \frac{h^2}{p^3} \frac{dp}{dr}$

4. A heavy particle attached to a fixed point by an elastic string is

allowed to fall freely from this point. Show that the elastic force at the lowest point is given by the equation

$$F = \frac{2\ W.h}{e}$$

where W = weight of the particle, h = total fall, e = extension of string.

5. If the mean density of the Sun be one-fourth that of the Earth, and its radius 104 times that of the Earth, show that the velocity acquired in one second by a falling body at the Sun's surface is approximately $26g$.

(a) Calculate the velocity with which a body falling from an indefinitely great distance would reach the surface of the Sun.

6. A homogeneous cylinder of mass M and radius a turns round a horizontal axis; a fine thread is wrapped round it, and has a mass M' attached to its extremity; show that the angular velocity of the cylinder when M' has descended the height h is

$$\sqrt{\frac{4\ M'\ g\ h}{a^2\ (M + 2\ M')}}$$

7. Find the centre of oscillation of a homogeneous sphere, of radius a, oscillating round a horizontal tangent to its surface.

8. If a free rigid body be acted on by external forces, the total work done by the external forces during any time is equal to the corresponding *change* of the kinetic energy of the body.

9. Define *simple harmonic motion*. If two or more harmonic motion in different directions have the same periods and phases, show that their resultant is also a simple harmonic motion of the same phase.

10. If a system be subjected to the internal mutual forces only between the bodies which constitute it, the total resolved momentum in any direction is constant.

11. A train is travelling at a uniform rate on level rails. W is the weight of the fore portion of the train, and W' that of a brake-van at the end of the train. If the brakes be applied to the brake-van, show that the stress produced on the couplings between it and the next carriage (assuming μ to represent the coefficient of friction) is

$$\mu\ \frac{W\ W'}{W + W'}$$

12. Given the horizontal range and time of flight of a projectile; find its initial velocity and angle of elevation.

NATURAL PHILOSOPHY—STATICS.

FRIDAY, APRIL 14TH:—2 TO 5 P.M.

Examiner,..... .....ALEXANDER JOHNSON, M.A. LL.D.

1. Write down the equations of equilibrium of a flexible inextensible, and thence deduce that of the Common Catenary.

2. Prove that the centre of mass of a hemisphere whose density is proportional to the n power of the distance from the centre is at a distance $= \frac{n+3}{n+4} \cdot \frac{a}{2}$ from the centre, a being the radius of the hemisphere.

3. Find the position of the centroid of the arc of a semi-cardioid,

$\left(r = a\,(1 + \cos\theta) \right)$

4. Apply the principle of Virtual Work to find the position of equilibrium and the pressures on the plane and wall when a heavy beam AB rests upon a smooth horizontal plane CA and a smooth vertical wall CB, the lower extremity A being attached to a cord which passes over a smooth pulley at C and sustains a given weight P.

5. If any number of co-planar forces are in equilibrium, and if the forces be turned each round a fixed point, in the same sense through any common angle, the new system is equivalent to a couple.

6. Prove that a force and a couple acting in the same plane on a rigid body are equivalent to a single force.

7. Two heavy particles rest on the concave side of a smooth vertical circle, and are connected by a string passing over a smooth peg, at the extremity of the vertical diameter. If the particles are acted upon by two horizontal forces proportional to the distances of the particles from the vertical diameter, find the position of equilibrium by the principle of vertical work.

8. Find the angle that a given force P must make with a rough inclined plane, so that when a weight W is just sustained, the normal pressure shall be equal to W.

9. Show how to represent graphically the forces in the general case of the Funicular Polygon.

10. A particle placed at O is acted on by forces represented in magnitude and direction by the lines OA_1, OA_2, OA_3, OA_n which join O to any fixed points, A_1, A_2.....A_n; where must O be placed so that the magnitude of the resultant force may be constant?

11. If from any point perpendiculars be drawn to the sides of a polygon, and forces act along these perpendiculars, either all inwards, or all outwards, each force being proportional to the side to which it is perpendicular, the system is in equilibrium.

12. A system of heavy bars, freely articulated, is suspended from two fixed points, P and Q; determine the magnitude and directions of the reactions at the joints.

ENGLISH LANGUAGE AND LITERATURE.

ENGLISH LITERATURE.

FIRST YEAR.

MONDAY, APRIL 3RD :—9 TO 12, A.M.

Examiners,..... { CHAS. E. MOYSE, B.A. / W. J. MESSENGER, B.A.

1. Write on the study of poetry.

2. (*a*) Discuss the mythical and historical elements in *Beowulf*.

(*b*) What is the historic value of *Beowulf*?

3. (*a*) Give a short account of Orosius' *Universal History*, and of Alfred's translation of it.

(*b*) Give a short account of Aelfric.

(*c*) For what is the *Battle of Maldon* chiefly valuable?

4. (*a*) Describe Geoffrey of Monmouth's *Historia Britonum*, and mention a contemporary criticism of it.

(*b*) Give an account of the *Polychronicon*.

5. (*a*) What are the chief characteristics of Chaucer's poetry? Give any passages in illustration.

(*b*) Give a brief outline of the *Assembly of Foules*.

(*c*) Show Chaucer's indebtedness to other writers in this poem.

6. (*a*) Write on the *Apologie for Poetrie*, and mention any passages which you think specially good.

(*b*) Give a brief outline of Greene's *Pandosto* OR of Marlowe's *Faustus*.

7. (*a*) Make notes on ottava rima, Spenserian stanza, rime royal, *de Monarchia*, Adam Spencer, *de Dominio Divino*, *Falls of Princes*, *Battle of Alcazar*.

(*b*) Say where the following lines occur :—

And sen thou art a king, be thou discreet.

And now by these presents I do you advertise
That I am minded to marry you in no wise.

For an this curre do gnar,
They must stande all a far
To holde up their hand at the bar.

Go, lyttle Calender, thou hast a free passeporte,
Goe but a lowly gate emongste the meaner sorte.

And though that I of auncestry, a baron's daughter be
Yet have you proved how I you loved, a squire of lowe degree.

(FACULTIES OF ARTS AND APPLIED SCIENCE.)

ENGLISH LITERATURE.

FIRST YEAR.

MILTON: *Comus.*

MONDAY, APRIL 3RD:—2.30 to 5.30, P.M.

Examiners,..... { CHAS. E. MOYSE, B.A.
W. J. MESSENGER, B.A.

1. Mention the prose works of Milton, written before he became Latin Secretary. Give a brief account of each, and a passage from any to illustrate Milton's style.

2. Make notes on:

(*a*) Philostratus, Hobson, Salmasius, Gauden, Manso, Smectymnuus, Alex. Gill.

(*b*) Epitaphium Damonis, Sportive Wit, Arcades, Fides Publica, Triumphs of Oriana, Hay any work for Cooper, Histriomastix.

3. Describe the development of the Masque.

4. Describe the part taken by the Attendant Spirit.

5. (*a*) Point out similarities in *Comus* and the *Old Wives Tale.*

(*b*) Mention passages in which Milton compliments the leading persons concerned in the masque.

6. Assign the following to their proper characters, and give the context in each case:—

(*a*) I know each lane and every alley green.

(*b*) Then down the lawns I ran with headlong haste.

(*c*) I hate when vice can bolt her arguments;

(*d*) What! have you let the false enchanter 'scape?

(*e*) And thou shalt be our star of Arcady.

(*f*) A thousand liveried angels lackey her.

INTERMEDIATE EXAMINATION.

ENGLISH LITERATURE.

SPALDING: *Elizabethan and Stuart Periods*.

MONDAY, APRIL 3RD:—9 TO 12 A.M.

Examiner,.....CHAS. E. MOYSE, B.A.

1. Write on Translations of the Bible.

2. Make a brief note on each of the following works, saying why it is important, and naming the author:—The Religion of Protestants a Safe Way to Salvation, Areopagitica, Euphues, Anatomy of Melancholy, Polyolbion, Cooper's Hill, Essay on Translated Verse, Annus Mirabilis, Fables, Christ's Victory.

3. Write on Pope.

4. Mention the sources of the following quotations:—

(*a*) I never love those salamanders that are never well but when they are in the fire of contention!

(*b*) History hath triumphed over Time, which, besides it, nothing but Eternity hath triumphed over.

(*c*) As good almost kill a man as kill a good book.

(*d*) I had rather believe all the Fables in the Legend, and the Talmud and the Alcoran than that this universal frame is without a Mind.

(*e*) And is there care in heaven and is there love
In heavenly spirits to these creatures base.....

(*f*) Athens the eye of Greece.

(*g*) His tenants grow rich; his servants look satisfied; all the young women profess love to him; and all the young men are glad of his company.

5. Give Hallam's criticism of Shakspere's genius.

6. Write on the philosophy of Hobbes.

7. Write on Milton's early poems.

INTERMEDIATE EXAMINATION.

ENGLISH LITERATURE.

The leading poets of the Nineteenth Century.

MONDAY, APRIL 3RD:—MORNING, 9 TO 12.

Examiner,..... CHAS. E. MOYSE, B.A.

(*Answer questions* 1 *and* 2 *and any two of the remainder. Quote whenever you are able to do so.*)

1. (*a*) Trace the outlines of the development of Feudalism in France.
   (*b*) Write on Burke's *Reflections*, and the replies which ensued.

2. Write on Wordsworth's *Prelude*, with reference to
   (*a*) his attitude towards the French Revolution
   (*b*) his attitude towards University Life
   (*c*) his attitude towards Nature.

3. Show in detail the results of the influence of the French Revolution on Southey and Coleridge, as displayed in their lives and their works.

4. Give an outline of the life of Scott. Notice his poems and the influences which he felt, and display the characteristics of his poetry.

5. Write on Byron's life, his works, the quality of his poetry, and his place in literature.

6. Write similarly on Keats.

7. Write similarly on Shelley.

INTERMEDIATE EXAMINATION.

ENGLISH LITERATURE.

SHAKSPERE:—*A Midsummer's Night's Dream.*

TENNYSON:—*Gareth and Lynette.*

MONDAY, APRIL 3RD:—2 TO 5, P.M.

Examiners,..... { CHAS. E. MOYSE, B.A. / W. J. MESSENGER, B.A.

A.

1. Write on Shaksperian Chronology (Internal).

2. Give three references to Shakspere from the works of contemporaries, and notice their importance in a study of Shakspere.

3. Discuss the M. N. Dream, with reference:—

(*a*) to title.

(*b*) to classification (non-chronological).

(*c*) to mechanism.

4. Write on the play of the Mechanicals, and explain its meaning.

5. Assign the following quotations to their respective speakers; and comment on them:

(*a*) Then speak'st aright

I am that merry wanderer of the night.

(*b*) Give me that boy and I will go with thee.

(*c*) I'll put a girdle round about the earth in forty minutes.

(*d*) Well, we will have such a prologue, and it shall be written in eight and six.

(*e*) Is all the counsel that we two have shared..... ?

(*f*) I have an exposition of sleep come upon me.

(*g*) For never anything can be amiss,

When simpleness and duty tender it.

(*h*) He hath rid his prologue like a rough colt;

6. (*a*) "The best in this kind are but shadows; and the worst are no worse if imagination amend them." What is the significance of this passage?

(*b*) Quote any three passages of not less than ten lines which you consider specially good.

7. Narrate events of Act II, noting contemporary references.

B.

1. Sketch the story of Gareth and Lynette till Gareth's arrival at Arthur's hall, and give the spiritual interpretation as you proceed.

2. Describe the third combat and give its spiritual meaning.

3. (*a*) Give any passage which you think best expresses the allegorical character of the poem.

(*b*) "And out from this
Issued the bright face of a blooming boy."
Make a note on this.

INTERMEDIATE EXAMINATION.

ENGLISH AND CANADIAN HISTORY, AND ESSAY.

THURSDAY, APRIL 13TH:—MORNING 9 TO 12-30.

Examiners,..... { CHAS. E. MOYSE, B.A. / REV. PROF. MACADAM, M.A.

N.B.—Candidates will answer the following pairs of groups of questions, namely, A and B, *or* A and C, but *not* B and C.

A.

1. Write on (*a*) the locality of the Teutonic settlements in Britain; (*b*) the introduction of Christianity into England.

2. Give an account of the reign of Henry I.

3. Name (*a*) three nobles and (*b*) three ecclesiastics who made themselves conspicuous in English history before the Tudor period, and state with precision the part which each played.

B.

1. Without touching on the domestic life of Henry VIII., give an account of that monarch's reign.

2. Sketch the career of (*a*) Monmouth, (*b*) Marlborough

3. Give, in outline, the dealings between England and Ireland from the accession of the Stuarts to the beginning of the present century.

C.

1. Sketch the great outlines of discovery and exploration in connection with North America.

2. Give an account of Champlain, and indicate the character of the ancient administration of New France.

3. Give the terms of the treaty of Utrecht which concern Canada. Without entering into any details concerning the fall of Quebec, describe the course of the Anglo-French struggle in America from 1745 to 1759. Why is Pontiac famous?

ESSAY.

Write an Essay of not less than a page and a half in length, on *one* of the following subjects:

Arbitration.
The Fine Arts.
Patriotism.

THIRD YEAR.

CHAUCER:—*Prologue to the Canterbury Tales.* RHETORIC.

FRIDAY, APRIL 7TH:—AFTERNOON, 2 TO 5.

Examiners,..... .... { CHAS. E. MOYSE, B.A. / P. T. LAFLEUR, M.A.

(Write the answers to groups A and B on two separate sets of papers, and write your name at the head of both sets).

A.—CHAUCER.

1. Describe the Cook and the Pardoner.

2. Say of whom each of the following lines is written, and give the context of any five as accurately as you can:

(*a*) A trewe swinkere and a good was he

(*b*) And evere he rood the hindrest of our route

(*c*) Of his visage children were aferd

(*d*) Noght o word spak he more than was nede

(*e*) Up-on his heed a Flaundrish bever hat

(*f*) By water he sente hem hoom to every lond. (Explain this line.)

(*g*) A whyt cote and a blew hood wered he

(*h*) His woning was ful fair up-on an heeth

(*i*) A forster was he, soothly, as I gesse

3. Make notes on italicized words in the following description:

With him ther was his sone a *yong Squyer*,
A *lovyer*, and a lusty *bacheler*,
With lokkes *crulle*, as they were leyd in presse.
Of twenty *yeer* of age he was, I *gesse*.
Of his *stature* he was of *evene* lengthe,
And *wonderly delivere*, and greet of strengthe.
And he hadde been sometyme in *chivachye*,
In Flaundres, in Artoys, and Picardye,
And born him wel, *as* of so litel space,
In hope *to stonden* in his *lady* grace.
Embrouded was he, as it were a mede
Al ful of fresshe floures, whyte and rede.
Singing he was, or floytinge al the *day*;
He was as fresh as is the *month* of May.
Short was his goune, with sleeves longe and wyde,
Wel *coude* he *sitte* on *hors*, and *faire* ryde.
He coude songes *make* and wel endyte,
Iuste and *eek* daunce, and wel purtreye and wryte.

So hote he *lovede*, that by *nightertale*
He *sleep* namore than doth a *nightingale*.
Curteys he was, lowly and servisable,
And *carf biforn* his *fader* at the table.

B.—RHETORIC.

(N.B.—Additional marks will be given for excellence in arrangement and expression.)

1. Explain and illustrate;—Antithesis, Mixed Metaphor, Climax, Argument from Analogy, Spenserian Stanza, Apophthegm.

2. What meanings are attached to the word *Style*, in Rhetoric? Explain fully, and give examples by quoting from well-known writers.

3. Define Exposition: give, in outline, the principal rules; and add a practical illustration of them in their application to any *one* of the following subjects:

(*a*) Progress.
(*b*) Socialism.
(*c*) Ideals.

4. Distinguish clearly between the Method and the Tactics of Oratory; and point out their respective connection with argument and persuasion.

5. Contrast the Novel and the Romance, and support your remarks with examples.

B.A. ORDINARY EXAMINATION.

EUROPEAN HISTORY.

MYERS:—*Mediæval and Modern History;* BRYCE:—*Holy Roman Empire. Lectures.*

FRIDAY, APRIL 7TH:—2 TO 5 P.M.

Examiners,..... { CHAS. E. MOYSE, B.A.
REV. PROF. A. T. LOVE, B.A.

Students of Morrin College will answer Groups A and B. Students of McGill College will answer Group C, and also any two questions in each of the Groups A and B.

(A) MYERS:—*Mediæval and Modern History.*

1. Write on *two* of the following subjects:—

(*a*) the Anglo-Saxon conquest of Britain.

(*b*) the conversion of the Goths.

(*c*) the formation of the Romance languages.

2. What was the state of the Empire at the accession of Heraclius?

3. Give an account of the conquest of Spain.

4. Note the evil and the good results of the Classical Revival.

5. Narrate the most important transactions of the period covered by the Capetian and Valois dynasties.

6. Mention the three different theories of the divinely constituted relation of the World-King and the World-Priest.

7. Remark on the defeat of the Turkish fleet at Lepanto.

8. Make short notes on—the Northern Herodotus, War of the Iconoclasts, the origin of Fiefs, Tostig, the Varangians, the fall of Edessa Saladin, Stephen of Blois, Ghibellines, Tamerlane, Hildebrand, Council of Placentia, Maximilian I, the Ten Districts, Ivan, the Hanseatic League.

(B) BRYCE :—*Holy Roman Empire.*

1. Write on the theory of the relation between Church and State, as displayed in Art.

2. Write on Dante's *De Monarchia* and Hippolytus a Lapide.

3. Remark on Frederick Barbarossa's contest with (*a*) Pope Hadrian IV, (*b*) Alexander III.

4. What was the effect of the Reformation on (*a*) the doctrines regarding the visible Church, (*b*) on political and religious liberty?

5. Write on the subject of the recognition of the Holy Roman Empire by the States of Europe.

6. Write on the programme observed on the visit of an Emperor to Rome.

(C)

1. Show from history the various aspects in which a colony was regarded by the Mother Country.

2. (*a*) Point out the existence of the principle of Representation in the early history of the English colonies in North America (*b*) Is the feeling of common interest a binding national force?

3. Give the great historical landmarks of the European map, and prove them to be so.

4. Sketch the outline of the interference of Rome in the affairs of the East prior to her struggle with Persia, and point out historical principles involved.

5. Notice the dealings between Tiberius and the Senate and discuss the question involved.

6. (*a*) What features are noteworthy as regards the composition of the Imperial host at the battle of the Catalaunian Fields? (*b*) Briefly set forth the significant features of the three Asiatic peoples that have been conspicuous in modern history.

7. Write on the administration of the Prefectures.

NEW SHAKSPERE SOCIETY'S PRIZE

Othello; King Lear.

WEDNESDAY, DECEMBER 21ST:—AFTERNOON, 2 TO 5.

Examiner, ... CHAS. E. MOYSE, B.A.

1. Write on (*a*) the source of Othello; (*b*) Shakspere's deviations from it; (*c*) the duration of the action of the play.

2. Give the outline of what is said in dialogue by Iago and Othello.

3. Notice the history tha underlies Othello, and write on the life of society as it appears in the play.

4. Use King Lear in illustration of Elizabethan English.

5. Produce the leading points in Gervinus's criticism of the play of Lear.

6. Choose some important subject which the play of Lear suggests, and treat it with reference to Shakspere's other works and, if possible, with the Drama at large

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NEW SHAKSPERE SOCIETY'S PRIZE.

Hamlet; Macbeth.

WEDNESDAY, DECEMBER 21ST:—MORNING, 9 TO 12.

Examiner, ... CHAS E MOYSE, B.A.

1. Write on the character of Hamlet, and illustrate your statements from the play.

2. Contrast the play Hamlet with Romeo and Juliet.

3. Write on the tone of society as displayed in Hamlet, with especia[1] reference to habits and customs alluded to pointedly by Shakspere.

4. Discuss the authorship of Macbeth, and mention differences between the play and its source.

5. Give an outline of the Witch-scenes in Macbeth, and point out the place of the Witches in the play.

6. Quote short but powerful passages spoken by Macbeth, Lady Macbeth and Macduff, mentioning precisely where each occurs. Objections have been made to the soliloquy of the Porter; what is its meaning?

EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

THIRD YEAR.

MILTON:—*Shorter English Poems.* WORDSWORTH:—*Prelude.*

MONDAY, MARCH 13TH:—2 TO 5, P. M.

Examiner,.....CHAS. E. MOYSE, B.A.

1. (*a*) Show by brief quotations that *L'Allegro* and *Il Penseroso* are complementary and parallel throughout.

(*b*) What evidence do these poems give concerning Milton's rea ling?

2. Give some account of Pastoral poetry. What are the poetical characteristics of *Lycidas?* Notice the biographical element in *Lycidas*, and illustrate by quotation.

3 State whence the following quotations are taken:—

(*a*) But my late spring no bud or blossom shew'th.

(*b*) Juno dares not give her odds.

(*c*) He shook his mitr'd locks, and stern bespoke.

(*d*) thought to kiss.
But kill'd alas.

(*e*) The hooked chariot stood
Unstain'd with hostile blood.

(*f*) the heavenly tune which none can hear
Of human mould with gross unpurged ear.

(*g*) Death was half glad when he had got him down.

4. Give the substance of important passages in the *Prelude* which touch on the following subjects:—

(*a*) The choice of the great poem.

(*b*) The unsatisfactory character of academic life at Cambridge.

(*c*) Life in London.

5. Sketch the outline of the sections in which the following quotations are found:—

(*a*) From the heart
Of London..... .....thou camest.
(*b*) Bliss was it to be alive
(*c*) Stepping back into the shade
Of a thick hawthorn, I could mark him well,
Myself unseen. He was of stature tall.

6. Examine the attitude of Wordsworth towards Nature, as revealed in the *Prelude*.

ADDITIONAL AND HONOUR EXAMINATION.

THIRD YEAR.

HALLAM:—*Middle Ages*, chaps. 1, 3, 5.

SATURDAY, MARCH 18TH:—2 TO 5, P M.

Examiner, ...CHAS. E. MOYSE, B.A

1. (*a*) Indicate the locality of the Spanish March. Comment briefly on the Treaty of Mersen and the Donation of Pepin.

(*b*) Make a few notes on *carroccio*, *condottieri*, John of Procida.

(*c*) Make a few notes on the League of the Rhine, the Kingdom of Arles, Belgrade.

2. Give some account of the Third and subsequent Crusades, excluding the Crusades of St. Louis.

3. Write on the foundation of the office of podestà, its revival, and the functions attached to it.

4. What influences tended to promote the feeling of republicanism in Rome? Give striking proofs of its existence, *with details*. Why did Rome not show republicanism as markedly as other Italian cities?

5. Sketch the maritime career of (*a*) Pisa, (*b*) Genoa, prior to the battle of Meloria.

6. For what is the reign of the Emperor Charles IV. constitutionally distinguished? Give details.

7. Sketch the civic history of Florence, with no more details concerning its constitution than serve to make your narrative clear.

THIRD YEAR ADDITIONAL AND HONOURS.

BURKE:—*Reflections*. MACAULAY:—*Essays on Clive, Ranke's History of the Popes, Warren Hastings.*

FRIDAY, MARCH 24TH:—2 TO 5, P.M.

Examiner,..... CHAS. E. MOYSE, B.A.

1. State in what connection each of the following references occurs:—.

(*a*) dashing Machiavelian politicians.

(*b*) Sir Edward Coke, that great oracle of our law.

(*c*) the then earl of Holland.

(*d*) Helvetius.

(*e*) Aristotle.

(*f*) the Cardinal of Lorraine.

(*g*) M. de Calonne.

2. Mention allusions to (*a*) English literature; (*b*) English history in tabular form, with a *very* brief note saying why each allusion is made.

3. Write on the finances of France.

4. Sketch the career of Dupleix.

5. Write on (*a*) the Nabobs, (*b*) the Letters of Junius.

6. Write on the Jesuits.

7. (*a*) State the charges brought against Warren Hastings. (*b*) Indicate on a map or otherwise the chief localities connected with the career of Hastings in India, and say precisely what took place there.

THIRD YEAR HONOURS.

HISTORY.

DRYDEN:—*Annus Mirabilis; Absalom and Achitophel; Preface to Fables.* SPENCER:—*Faerie Queene*, Bk. I; MILTON:—*Comus.*

THURSDAY, MARCH 30TH:—2 TO 5, P.M.

Examiner,..... CHAS. E. MOYSE, B.A.

1. Give an outline of Dryden's Account of the *Annus Mirabilis*, as set forth in the prefatory Letter.

2. Refer the following lines to their places in the poem:

(*a*) He first was killed who first to battle went
(*b*) Kept idle thunder in his lifted hand
(*c*) Heaven thought fit to have it purged by fire.

3. (*a*) Note indebtedness to Homer and Virgil in *Annus Mirabilis*. (*b*) How and where are the following used in imagery: the *castor*, *spider*, *eagle*?

4. Write on historical events which throw light on *Absalom and Achitophel*.

5. Describe Corah. Give a list of the chief characters in *Absalom and Achitophel*, and quote a striking line from Dryden's description of each.

6. What "objections" does Dryden answer in his Preface to his "Fables"?

7. Give the meaning (and nothing else) of the following words: bowrs, avale, darrayne, essoyne, housling, outrage, parbreake, sam, warrayd. Refer three to their places in the poem.

8. Give an account of the adventure at Orgoglio's castle.

9. Write on the influence of Italian on Spenser as seen in the *Faerie Queene*.

10. Disclose the leading features of the allegory of *Comus*.

11. Show that *Comus* is a masque. What is the meaning of the Echo Song? Quote from *Comus* a brief passage of which the burden is (*a*) revelry, (*b*) philosophy, (*c*) purity.

THIRD YEAR HONOURS.

ANGLO-SAXON AND EARLY ENGLISH.

SATURDAY, APRIL 1ST :—2 TO 5, P.M.

Examiners, ... CHAS. E. MOYSE, B.A. / W. J. MESSENGER, B.A.

SWEET :—*Anglo-Saxon Reader*, Extt. IV., VIII., XX., XXI., XXVII
MORRIS *and* SKEAT :—Specimens of Early English, Part II., Ext. I.-IX.

(Write your answers on separate sets of papers, marked A. and B. respectively, to correspond to the divisions below.)

A. 1. Ext. IV. Translate lines 55-62 and 166-171.

Bith, conjugate; *twegen*, decline; *sceall*, conjugate throughout; *beren*, decline.

Ext. VIII. Translate lines 22-30 and 194-204.

Gegaderade, give the present indicative and present subjunctive in full; decline *mon*, *niht*, *other*.

Ext. XX. Translate lines 52-61; 174-182; 268-278; 376-381; and give the principal parts of the strong verbs which occur in the extracts.

Ext. XXI. Translate lines 295-316, and explain all the *umlauts* you discern.

Ext. XXVII. Translate the last Riddle.

B. 1. Translate :—

Ext. I. lines 31-45.
" II. Psalm VIII., lines 15-26.
" III. lines 194-209.
" VI. lines 43-56.
" VII. lines 21-37.
" IX. lines 40-59.

2. (*a*) Translate :—

Ryzt hit is thet the spekule wl m[illegible] w[illegible] by stille
(*b*) Bote yef the ilke uaderes stephede hise strayny and ordayny.
(*c*) And fraind at thaim if thai wist.
(*d*) That mani saccles suld it bij.
(*e*) Miles murgeth huere makes.
(*f*) Giueand the to tham, gedre thai sal.
(*g*) Thir kinges rides forth thair rade.
(*h*) Este bueth oune brondes.

(*b*) Point out all the dialectal words in the above extract and give their dialectal marks.

THIRD YEAR HONOURS.

ANGLO-SAXON.

TUESDAY, APRIL 4TH :—2 TO 5, P.M.

Examiner, ... CHAS. E. MOYSE, B.A.

1. Translate :—

A. thanon woc fela
géosceaftgasta.
thy hé thone féond ofercwom
gehnægde helle gast

B. Wearth him on Heorote to handbanan
wælgæst wæfre
nu séo hand ligeth,
séo the éow wel-hwylcra wilna dohte.

C. Denum eallum wæs,
winum Scyldinga, weorce on mode,
to getholianne thegne monegum,
oncyth eorla gehwæm, syththan Æscheres
on tham holmclife hafelan métton.

Give the forms of each part of the compound words in Extracts A, B and C, with their meanings as simples.

D. Gyrede hine Beówulf
Eorlgewædum
næs thæt forma sith,
thæt hit ellenweorc æfnan scolde.

E. Férdon forth thonon féthelastum
ferhthum fægne
gumdryhten mid
modig on gemonge meodowongas træd.

Beowulf.

F Gehyrst thu sælida, hwæt this folc segeth?
hih willath éow to gafole garas syllan,
ættrene ord and ealde swurd,
tha heregeatu the éow æt hilde ne déah.

G. "Ic thé thancige théoda Waldend,
ealra thæra wynna
thæt thær modiglice manega spræcon
the eft æt thearfe tholian noldon.

Ic thæt gehate, thæt ic heonon nelle
fléon fotes trymm
æfre embe stunde hé sealde sume wunde,
tha hwile the hé wæpna wealdan moste.

H. Hige sceal the heardra, heorte the cénre,
mod sceal the mare
næs thæt na sé Godric the tha guthe forbeah.

Battle of Maldon.

I. Ic wæs wæpenwiga: nu mec wlonc theceth,
géong hagostealdmonn
stefne minre forstolen hreddan,
flyman féondsceathan. Frige hwæt ic hatte!

J. Moththe word fræt; me thæt thuhte
wrættlicu wyrd, tha ic thæt wundor gefrægn,
thæt sé wyrm forswealg wera giedd sumes,
théof in thystro thrymmfæstne cwide
and thæs strangan stathol: stælgied ne wæs
wihte thy gléawra the he tham wordum swealg.

Cynewulf.

2. Translate :—

Hé wæs on ofste; ðe wæs thæt gewrixle til; sigoréadig secg; thonne hniton féthan; Eard git ne const; uton rathe feran; wicg wundenfeax; folc to sægon; nu ic eom sithes fus; nalas elnes læt; wæs thæt blod to thæs hat; hicgan to handum; Ne thurfe wé us spillan; modige twegen; hremmas wundon; Gemunath thara mæla; Théodne gehende; Sanges rowe.

3. State what cases the following verbs govern, and give the meaning of each verb: gelimpan, onléon, genethan, onfon, wealdan.

4. Decline *thes*.

5. How is the passive voice formed in Anglo-Saxon? Write on the use of (*a*) the Subjunctive, (*b*) the Gerund, in Anglo-Saxon.

6. Explain *umlaut* and select specimens from extract F,

7. Give the principal parts of the strong verbs in H, I, J.

THIRD YEAR HONOURS.

LESLIE STEPHEN :—*English Thought in the Eighteenth Century.*
ADDISON :—*Essays in the Spectator.*

FRIDAY, APRIL 14TH :—2 TO 5, P.M.

Examiner,.....CHAS. E. MOYSE, B.A.

1. Write *very briefly* on the following subjects :—

(*a*) The meaning attached to *equality* by Rousseau.

(*b*) Burke's estimate of Montesquieu.

(*c*) Brown's opinion of Warburton and Bolingbroke, his views regarding law and physic, and the remedy he would apply to the nation, politically, in order to obtain reform.

(*d*) Johnson's views regarding *petitions* and American taxation.

(*e*) The style of Ferguson

(*f*) The demagogue in Tucker.

(*g*) Burke's most marked peculiarity of mind.

(*h*) The narrowness in the mode of Junius.

2. Write on Godwin.

3. Write *very briefly* on the following subjects :—

(*a*) Is Satan, in Addison's opinion, the hero of Paradise Lost?

(*b*) The catalogue of Evil Spirits, to what compared.

(*c*) Milton's picture of Raphael.

(*d*) "Such Shadowy and Imaginary Persons as may be introduced into Heroick Poems," with reference to Homer and Milton.

(*e*) The gallantries of Paradise.

(*f*) Milton's directing Satan to the Sun.

(*g*) The preservation of Unity of Action by the three great poets.

4. Write on the Paper which deals with the creation of the world.

5. What does Addison mean by the pleasures of the imagination? How do they compare with those of the sense and the understanding?

6. (*a*) "We find the works of Nature the more pleasing the more they resemble those of Art." Elucidate.

(*b*) "But how comes it to pass, that we should take delight in being terrified or dejected by a Description, when we find so much Uneasiness in the Fear or Grief which we receive from any other Occasion?" Give the substance of Addison's answer.

THIRD YEAR HONOURS.

MACAULAY:—*History of England*, vol. 1, chap. 1; GREEN:—*History of the English People* (reigns of Eliz. and Chas. II.).

THURSDAY, APRIL 20TH:—9 TO 12.30, A.M.

Examiner,..... CHAS. E. MOYSE, B.A.

Macaulay.

1. Show how Macaulay treats the following subjects:—

(*a*) The beneficial operation of the Roman Catholic religion.

(*b*) The character of Cranmer.

(*c*) English history during that portion of the year 1640 which precedes the assembling of the Long Parliament.

2. In regard to Oliver Cromwell, write on

(*a*) His installation as Protector.

(*b*) His Parliaments.

(*c*) The general condition of the country during his Protectorate.

3. Notice, in general terms, the attitude of Elizabeth towards religion at the beginning of her reign.

4. Write on (*a*) new trade routes, (*b*) architectural change, in Elizabeth's reign.

5. Write on Pius V.

6. Sketch the course of Irish affairs in the reign of Elizabeth.

7. Indicate the character of Charles II.

8. Write on :—

(*a*) the act of Uniformity.

(*b*) the part played by the Cabal ministry.

THIRD YEAR HONOURS.

CHAUCER :—*Parlament of Foules*; SIDNEY :—*Apologie for Poetrie*; MILTON :—*Areopagitica*.

SATURDAY, APRIL 22ND :—2, P.M.

Examiner, ... CHAS. E. MOYSE, B.A

1. Write on the sources of the *Parlament of Foules*, and Chaucer's use of them, as displayed in his poem.

2. (*a*) Give an outline of the poem from the poet's entrance into the garden to his first sight of Nature.

(*b*) Give the meaning (and nothing else) of the following words and phrases : leuys ; to my pay ; fletynge ; the syke met he drynkyth ; soleyn ; the pilere elm, the cofere unto carayne, the sothe sadde ; welk I tho ; as men sey ; the day gan misse.

3. Show that Chaucer's poem reflects its time.

4. State in what way Sidney alludes to the following : Marathon, Ajax, Dives, Amadis de Gaule, Sanazzar, the Siracusians, Ireland, Omphale, Dante's Beatrix, Dante his heaven. How does Sidney translate *spoudaioteron* and *eikastike*

5. Quote a short passage from Sydney, which you think especially good.

6. (*a*) Give Sydney's views on the quality of the following subdivisions of Poetry : Pastoral, Elegiac, Lyrical, Heroical. Mention and explain allusions.

(*b*) How does Sidney maintain that the principal object of the Arts is the works of Nature ? What is said in this connection concerning Poetry ?

7. (*a*) What does Milton say concerning licensing in *pagan* Rome ? Explain allusions.

(*b*) " Makes the very person of that man his religion." *Who* and *how ?*

8. Give an outline of that portion of *Areopagitica* which shows that licensing " conduces nothing to the end for which it was framed."

9. Give some account of the history of licensing in England.

10. (*a*) Give the meaning (and nothing else) of the following words: civil, derogated, conversing, engrossing, impaled, colours.

(*a*) Explain the following allusions, and state their connections respectively: those confused seeds; Sorbonists; Loretto; a Harmony; Aquinas.

Notice some of Milton's allusions to writers and works in the modern tongues, and give the epithets applied to Englishmen and their books when you can.

ADDITIONAL AND B.A. HONOURS.

POPE:—*Essay on Criticism; Essay on Man.*

TUESDAY, MARCH 7TH:—MORNING, 9 to 12.

Examiner,..... CHAS. E. MOYSE, B.A.

1. Give the context of each of the following lines *or* its substance, and say in connection with what general subject each line is written:

(*a*) The glory of the Priesthood and the shame

(*b*) Then Criticism the Muses handmaid proved

(*c*) "What! leave the combat out?" exclaims the Knight

(*d*) They reason and conclude by precedent
And own stale nonsense which they ne'er invent.

(*e*) All books he reads, and all he reads assails

(*f*) some to Church repair
Not for the doctrine but the music there

(*g*) Like Kings we lose the conquests gain'd before

(*h*) Music resembles Poetry

2. Give the substance of Pope's sketch of the history of Criticism from the Stagirite down to his own time, and add a brief explanatory note on the moderns who are mentioned.

3. Write not less than one page on the poetical quality of the *Essay on Criticism* and the *Essay on Man*.

4. Give an outline of the main tenets of Deism as expressed by the school of Bolingbroke.

5. Give very short disconnected passages from the *Essay on Man* which express two of those main tenets.

6. Show the opinions of Pope regarding (*a*) Science; (*b*) Superstition; (*c*) Vice.

7. Sketch in your own language and on one page, an outline of Epistle IV. *Of the Nature and State of Man with respect to Happiness.*

8. Quote (*a*) from Epistle IV six disconnected lines which are proverbial, (*b*) from each of the other Epistles three lines, and say in what connection each occurs.

B.A. ADDITIONAL AND HONOURS.

TENNYSON:—*In Memoriam.*

SATURDAY, MARCH 11TH:—MORNING, 9 to 12.

Examiner, ... CHAS. E. MOYSE, B.A.

1. O Father, touch the east and light
The light that shone when Hope was born.
Trace the development of the poem until Christ appears.

2. Treat Wordsworthian aspects of In Memoriam.

3. Notice interpolated sections and compare them with their correspondences.

4. Develop, without quotation, Tennyson's views concerning individuality.

5. Give the substance of the "crux" of the poem.

6. Refer the following quotations to their divisions, and give their contexts:—

(*a*) Unwatch'd the garden bough shall sway
(*b*) The blind hysterics of the Celt
(*c*) These two have striven half the day
(*d*) The captive void of noble rage
(*e*) Hold thou the good: define it well
(*f*) If any calm, a calm despair
(*g*) The ruin'd shells of hollow towers
(*h*) The white kine glimmered
(*i*) My Arthur found your shadows fair
(*j*) And in thy wisdom make me wise.

7. Show that the usual mode of approaching In Memoriam through Petrarch or Milton or Shelley is based on false criticism.

B.A. ADDITIONAL AND HONOURS.

SWEET:—*Anglo-Saxon Reader*, Extt. II, XIII, XXIV-XXVII.

MORRIS and SKEAT:—*Specimens of Early English*, Part II, Extt. X-XX.

MONDAY, MARCH 27TH:—2 TO 5, P.M.

Examiners,..... { CHAS. E. MOYSE, B.A. / W. J. MESSENGER, B.A.

(A)

1. Translate:—

Ext. II, lines 31-44.

Give the principal parts of the purely strong verbs in this passage.

Ext. XIII, lines 24-36.

Decline all the strong nouns in this passage.

Ext. XXVI, lines 19-36.

Give the umlaubts of sælan, fréfran, geféra, blæd, meodu mine.

2. Translate:—

Ext. XXIV. lines 41-49.
Ext. XXV, lines 39-45.
Ext. XXVII, (II).

(B)

1. Translate:—

Ext. X, lines 2224-2233.
Ext. XII, lines 198-223.
Ext. XIII, lines 356-366.
Ext. XV., Passus VII, lines 300-311.
Ext. XIX, lines 631-637.

2. Translate:—

(*a*) Hir her tosprad, sche gan to fare
(*b*) "what amounteth al this farë?"
(*c*) no fors though I spillë
(*d*) Ful pal arist
(*e*) Receyue in gree
(*f*) than can here lift heele
(*g*) of lykyng ther woon
(*h*) zif a ys yfroted ond yhat
(*i*) that me dyeth with fyn reed
(*j*) so that thei felden fast to hym

(*k*) And com on fast but langar frest

(*l*) Saw that hym vorthit slep neidwais

(*m*) That he arest rycht thair vald ma

(*n*) Londes ond ludes as eyer after here lif dawes

(*o*) And stud in-till a busk lurkand

(*p*) the spuniande aspaltoun that spyserez sellen

(*q*) Rydelles wern tho grete rowtes of renkkes with-inne

r) For spakly speke it couthe tho ond spedeliche to-wawe

(*s*) With princes that er proper and prest

(*t*) That sogat fled for ferd

(*u*) thei etteleden sone

(*v*) And he war bodyn all evynly

3. Select from the extracts under B2 as many dialectal words as you recognize and give their dialectal marks.

B. A. HONOURS.

GIBBON :— *Decline and Fall*, CHAPS. L., LI., LXIV., LXV.

FRIDAY, MARCH 21TH :—2 TO 5, P.M.

Examiner,..... ....CHAS. E. MOYSE, B.A.

1. Sketch the creed of Islam.

2. Give some account of the first four Caliphs.

3. Sketch the conquest of Spain by the Moors.

4. Write on the progress of the Turkish Monarchy in Europe.

5. Give an account of the career of Timour.

B. A. HONOURS.

GUIZOT : —*History of Civilization in Europe.*

WEDNESDAY, MARCH 29TH :—2 TO 5, P.M.

Examiner,..... ....CHAS. E. MOYSE, B.A.

1. What elements did German barbarism contribute to Civilization ?

2. What forces led to various attempts to extricate European society from barbarism between the fifth and ninth centuries (*a*) among the German tribes, (*b*) in Italy and the South of Gaul, (*c*) in Spain, (*d*) in France.

3. Write on the attitute of the Church towards liberty of thought

4. Indicate the three kinds of royalty.

5. Write on the Crusades.

6. Write on the various aspects of the reign of Louis XIV.

B. A. HONOURS.

ANGLO-SAXON :—*Béowulf.*

SATURDAY, APRIL 1ST :—2 TO 5, P.M.

Examiner,..... CHAS. E. MOYSE, B.A.

1. Translate :

(*a*) lines 260-270.

(*b*) lines 456-490.

(*c*) lines 710-725.

(*d*) lines 838-857.

2. Discuss the question as to whether Grendel's arm was placed inside Heorot or not.

3. *Scyld Scéfing.* Write on this episode aud on the allegory which German interpretation applies.

4. Comment on the following passages and phrases :—

(*a*) swæse gesithas.

(*b*) léot landfruma lange ahte.

(*c*) Heathoscilfinges healsgebedde.

(*d*) and orcnéas.

(*e*) no he thone gifstol grétan moste.

(*f*) guth-searo geatolic.

(*g* antid othres dogores.

(*h*) eoforlic scionon.

(*i*) rondas regn-hearde.

(*j*) gladnian, Hrothgar.

(*k*) thathe gifsceattas Geata fyredon
thyder to thance.

(*l*) on heothe gestod.

(*m*) Wélandes geweorc.

(*n*) for were-fyhtum thu.....usic sohtest

(*o*) swæsne ethel. *Write on the Runes.*

5. Translation at sight :—

Translate :—(*a*) Uton don swa se witega cwæth: "Seofonsithum on dæg ic the, drihten, herade and thin lof sæde." Dæt seofonfeald getæl bith thus thurh us gefylled, gif dægredsang, primsang, undernsang, middægsang, nonsang, æfensang, nihtsang bith gefylled thurh ures theowdomes thenunge; be tham tidum cwæth se witega: "Seofonsithum on dæg ic drihten the herede; sothes se yleca witega be tham uhtwæccum thus cwæth: "To middre nihte ic aras, drihten, the to andettenne." Eornost lice on thysum tidum we herien urne scippend be tham domum his rihtwisnesse, thæt is on dægred, on thrim, on undern, on middæg, on non, on æfen, on nihtsange; and on riht arisan and drihtne geandettan.

B.A. HONOURS.

CAMPBELL :—*Pleasures of Hope.* MATTHEW ARNOLD :—*Essays in Criticism, Second Series.*

TUESDAY, APRIL 11TH :—2 TO 5, P.M.

Examiner, ... CHAS. E. MOYSE, B.A.

1. Show how Campbell treats

(*a*) Hope and maternal affection.

(*b*) Slavery and India.

2. Explain the following allusions in Part II : the robber Moor, Thalia's harp, Dneiper's swampy shore, Iberia's pilot, Sydney-cove, and say in what connection each occurs.

3. Write on Campbell as a poet, and illustrate your criticism with quotations from Part II.

4. Answer the following questions *pointedly :*

(*a*) What is the quality of Chaucer's poetry ? Why is Chaucer not one of the great classics ?

(*b*) Are Dryden and Pope poetical classics ?

(*c*) What danger to literature comes from the United States ? In what lies Milton's salutary influence ?

(*d*) How did the age in which Gray lived affect his poetry ?

(*e*) What are the leading qualities of virtue and defect in the poetry of Keats ?

(*f*) Is Wordsworth a philosopher

(*g*) How does Matthew Arnold define Byron's excellence What comparisons are drawn between Byron and Wordsworth ?

(*h*) What are the leading features of Shelley's character?

(*i*) What are positive and good qualities in Tolstoi?

(*j*) What is Amiel's view of American democracy?

B. A. HONOURS.

FREEMAN:—*Growth of the English Constitution.* MACAULAY:—*History of England*, vol. 1, chap. 3.

THURSDAY, APRIL 13TH:—MORNING, 9 TO 12.

Examiner,.....CHAS. E. MOYSE, B.A.

1. "The primitive Teutonic constitution, the constitution of the Germans of Tacitus, the constitution which has lingered on in a few remote corners of the old German realm, is democratic but it is not purely democratic." Explain.

2. Show that the English nation has, in the regular process of Law, exercised the right of deposing unworthy kings.

3. Freeman states that English institutions are not the work of abstract theory, and that French institutions are so. Elucidate this statement *pointedly*.

4. Write briefly on: (*a*) Folkland, (*b*) the will of Henry VIII.

5. Give an account of the condition of the army in the time of Charles II.

6. Write on later Stuart Literature (excluding newspapers) and Science.

B.A. HONOURS.

SHELLEY:—*Adonais.* TENNYSON:—*Coming of Arthur, Gareth and Lynette, Holy Grail, Passing of Arthur.*

SATURDAY, APRIL 15TH:—9 TO 12, A.M.

Examiner,.....CHAS. E. MOYSE, B.A.

1. (*a*) Trace the main outlines of thought in *Adonais*. (*b*) Describe the "mountain shepherds."

2. Consider Arthur mythically and historically.

3. Set forth allegory in (*a*) *The Coming of Arthur*, (*b*) *Gareth and Lynette*.

4. Write on the history and properties of the Grail as displayed in Romance.

5. Write on the poetry of Tennyson as displayed in the Idylls, and quote from the *Holy Grail* and the *Passing of Arthur*, when either illustrates your statements.

6. Show that the Idylls possess unity of development.

B.A. HONOURS.

MORE:—*Utopia*. VILLIERS:—*Rehearsal*.

TUESDAY, APRIL 18TH:—9 TO 12, A.M.

Examiner, ... CHAS. E. MOYSE, B.A.

1. State all that you learn from *Utopia* concerning the experiences of Raphael Hythlodaye.

2. Produce from *Utopia* evidence of

(*a*) the influence of the Renaissance.

(*b*) the state of continental politics.

3. Use the First Part of *Utopia* to examine the condition of English *husbandry*, and the Second to sketch the religious aspects of an ideal commonwealth.

4. What do you know concerning the writing of the *Rehearsal*?

5. Write on

(*a*) general features of the heroic drama.

(*b*) controversy regarding the form of the heroic drama.

(*c*) the *Rehearsal*, as reflecting (*a*) and (*b*), quoting when you can, and specifying the direct object of attack when possible.

B.A. HONOURS.

BUCKLE:—*History of Civilization in England*.

THURSDAY APRIL 20TH:—9 TO 12, A.M.

Examiner, ... CHAS. E. MOYSE, B.A.

1. Examine Asia in proof of civilization having been confined to fertile districts.

2. Show that the bad actions of men exhibit uniformity of sequence.

3. Write on Mexico and Peru.

4. Consider the following subjects with reference to Spain:—

(*a*) reverence for kings.

(*b*) the church and authorship.

5. Write on Spain in the time of Charles III.

6. Write on the Scotch towns in the middle ages.

B.A. HONOURS.

SHAKSPERE:—*Love's Labours Lost; A Midsummer Night's Dream; Hamlet.*

SATURDAY, APRIL 22ND —2 P.M.

Examiner,..... CHAS. E. MOYSE, B.A.

1. Set forth:—

(*a*) characteristics of the training and life of the Elizabethan dramatists as a body.

(*b*) the general character of the pre-Shaksperian regular drama.

(*c*) the London of Shakspere's day.

2. (*a*) Write on L. L. L. as reflecting general Elizabethan influences.

(*b*) Give an outline of the last Act.

3. (*a*) Write on the Fairies of the *Dream* without touching on the question of the indifference to mortals wrongly attributed to them.

(*b*) Write on Shakspere as revealed in the *Dream*.

4. Give as careful an estimate as you can of Hamlet's character as displayed in his monologues and in his attitude towards those with whom he is brought into contact. (Avoid the direct quotation of any stock criticisms, but give throughout your sketch *very* brief quotations from the play in illustration of your leading statements.)

5. Write on Elizabethan English and use the *Dream* and *Hamlet* in lustration.

LOGIC, MENTAL AND MORAL PHILOSOPHY.

INTERMEDIATE EXAMINATION.

FORMAL LOGIC.

FRIDAY, APRIL 14TH:—MORNING, 9 TO 12.

Examiners,.... ..... } J. CLARK MURRAY, LL.D.
} P. T. LAFLEUR, M.A.

1. Define *Logic*, and explain in a general way the purpose of the science. Distinguish the province of Logic from that of Psychology.

2. Of the following names determine which are respectively (*a*) singular or general, (*b*) positive or negative, (*c*) connotative or non-connotative:—volume, nihilist, the Bard of Avon, chemistry, Ivanhoe, potassium.

3. Explain briefly and illustrate:—quantity in propositions, quality of propositions, distribution.

4. Distinguish clearly between contrary and contradictory propositions Shew that the latter are to be preferred for the purpose of refuting an opponent in discussion.

5. Give the converse of each of the following propositions:—

a. No one is free who does not control himself.

b. Some inorganic substances do not contain carbon.

c. Non omnis moriar.

d. All men are not born equal.

6. Name the moods of the Third Figure. Prove that (*a*) no affirmative conclusion can be obtained from the second figure, (*b*) that no universal conclusion can be obtained from the Third Figure.

7. Explain and illustrate (with *sentences*) the argument of Modus Tollens, and the corresponding fallacy.

8. Make some notes on and give illustrations of:—

Reasoning in a circle, post hoc ergo propter hoc, undistributed middle.

9. Examine the following arguments, and express some opinion as to their value, giving grounds for so doing:—

(*a*) "Profit" is interpreted or defined to be "advantage;" to take profit then, is to take advantage; it is wrong to take advantage of others; and it is therefore wrong to take profit.

(*b*) What is not compulsory is pleasant; for compulsion is contrary to nature.

(*c*) I hold it impossible for any of the great monarchies of Europe to hold out much longer. All of them have reached a high degree of brilliancy and power; and every state that is in that condition is on the verge of its decline. (*Rousseau.*)

(*d*) Wealth is value; value is purchasing power; purchasing power is the product of labour and the product of labour is property; therefore wealth is property.

(*e*) Capital punishment is a violation of natural justice. No society has a right to deprive the individual of that which he has not obtained from that society.

THIRD YEAR.

MENTAL PHILOSOPHY.

MURRAY'S HANDBOOK OF PSYCHOLOGY, BOOK II, PART I.

WEDNESDAY, APRIL 12TH:—MORNING, 9 TO 12.

Examiner, ...J. CLARK MURRAY, LL.D.

Answer only eight questions.

1. Explain the order in which different kinds of cognition are evolved.

2. Illustrate the associability and the comparability *either* of Tastes *or* of Odours.

3. Write a note *either* on the faculty of Speech *or* on the art of Music.

4. Why can a person not perceive the magnitude and the figure of bodies by sight aloue?

5. A man had one of his eyes accidentally distorted, and saw doube for a time. Why?

6. Explain the illusion described at the opening of *Marmion*:—

> "The warriors on the turrets high,
> Moving athwart the evening sky
> Seemed forms of giant height."

7. Explain the relation of Abstraction and Attention.

8. Give some account of the controversy about the *Primum Cognitum*, *or* of the controversy about the meaning of General Terms.

9. Describe the different Ideals.

10. Distinguish the different kinds of Illusory Cognitions.

11. Explain the characteristics of Dreaming.

12. Distinguish the two opposite schools of Psychology.

B.A. ORDINARY EXAMINATION.

MURRAY'S INTRODUCTION TO ETHICS.

WEDNESDAY, APRIL 5TH:—MORNING, 9 TO 12.

Examiners,..... { J. CLARK MURRAY, LL.D.
REV. PROF. MACADAM.

(*Answer only eight questions.*)

1. Explain the relation of Ethics to Psychology, to Politics, and to Theology.

2. Distinguish the different stages in the development of the consciousness of moral obligation, according to the Empirical Theory.

3. Give *either* a critique of the Empirical Theory, *or* a statement of the Transcendental Theory.

4. "The reward of virtue is virtue, and the punishment of sin is a new sin." Explain.

5. "The love of duty is an *amor intellectualis*." Explain.

6. If a man pleads ignorance as an excuse for a wrong action, when is it legitimate to reply that "he ought to have known better?"

7. Give a brief exposition of Utilitarianism.

8. Distinguish two senses of the word *motive*, and discuss the question, whether in either sense the sole motive of human action can be said to be the love of pleasure.

9. Explain why the pursuit of pleasure is inevitably disappointing.

10. Give an outline of ancient Stoicism, *or* of the Platonic *or* of the Aristotelian Ethics.

11. Give a sketch of the theory of any one of the English moralists.

12. How does the uncertainty of speculative moral theories affect the formation of a practical moral code?

B.A. ORDINARY EXAMINATION.

MURRAY'S INTRODUCTION TO ETHICS.

WEDNESDAY, APRIL 5TH:—AFTERNOON, 2 TO 5.

Examiners, ... { J. CLARK MURRAY, LL.D. / REV. PROF. MACADAM.

(*Answer only seven questions.*)

1. Give a detailed classification of Social Duties, and explain the principle on which you proceed.

2. (*a*) State the relation of Rights and Obligations. (*b*) Show what is the primary right of every man. (*c*) Remark on the distinction of Personal and Real Rights.

3. (*a*) Sketch the obligations of the individual to the State. (*b*) Discuss the line of action to be pursued in the event of his being wronged by the State.

4. Indicate the obligations of justice to the individual, *either* in reference to his bodily, *or* in reference to his mental life.

5. Write a short essay on the Forfeiture of Rights.

6. (*a*) Define Virtue. (*b*) Explain the Socratic, the Aristotelian and the Platonic doctrines of Virtue.

7. In how far does intellectual culture affect the development of virtue, and to what extent can conscience be educated?

8. How may the emotional habit of virtue be cultivated directly and indirectly?

9. Estimate the value for moral training of the method termed *Askesis*.

10. State some practical rules for the promotion of our moral culture.

THIRD YEAR HONOURS.

PLATO'S THEÆTETUS AND GREEK PHILOSOPHY.

FRIDAY, APRIL 7TH:—MORNING, 9 TO 12.

Examiner, ... J. CLARK MURRAY, LL.D.

1. Describe the different periods, into which the history of Greek Philosophy was divided in the lectures.

2. Sketch *either* the general course of speculation during the first period, *or* the speculations of any one of its schools.

3. Explain the new direction given to speculation by Anaxagoras, *or* sketch the leading doctrines of the Cyrenaics.

4. Give an outline *either* of the Physics *or* of the Ethics of Aristotle.

5. Sketch the leading doctrines *either* of Stoics *or* of the Epicureans.

6. Give a brief account *either* of the New Academy *or* of the great speculative movement in Alexandria.

7. Give a full outline of the course of discussion in the Therætetus.

THIRD YEAR HONOURS.

LOGIC.

THOMSON:—*Outlines*; MILL, BKS. IV AND V.

TUESDAY, 18TH APRIL:—MORNING, 9 TO 12.

Examiners,..... { J. CLARK MURRAY, LL.D.
P. T. LAFLEUR, M.A.

1. Distinguish fully and clearly between Logic as a *Science* and Logic as an *Art*.

2. State the functions of Language as given by Thomson, and make some notes on any *one*.

3. Explain briefly and illustrate:—Genus summum, Privative conceptions, colligation, intension.

4. What is meant by *Distribution* in Logic? Determine the distribution of terms in the different propositional forms; and shew clearly what ambiguity may underlie the work "some."

5. What meaning does Thomson give o he word *chance*? Make a clear distinction, with the help of an illustration, etween mathematical probability and the indefinite probability of ordinary life.

6. Make some notes on Abstraction, as a process subsidiary, but indispensable, to Induction.

7. Explain Natural Classification and Classification by Series.

THIRD YEAR HONOURS.

FRASER'S SELECTIONS FROM BERKELEY,

AND

JAMES' PRINCIPLES OF PSYCHOLOGY.

FRIDAY, APRIL 21ST :—MORNING, 9 TO 12.

Examiner,.....J. CLARK MURRAY, LL.D.

I.—*Berkeley.*

1. "An intuitive knowledge may be obtained of this by anyone that shall attend to what is meant by the term *exist*, when applied to sensible things" (*Principles of Human Knowledge*, § 3). Explain the meaning to which Berkeley refers and the doctrine founded upon it.

2. "It will be objected that we see things actually without or at a distance from us, and which consequently do not exist in the mind, it being absurd that those things, which are seen at the distance of several miles, should be as near to us as our own thoughts." (*Ibid*, § 42). Give Berkeley's answer to this objection, as illustrated by his *New Theory of Vision*.

3. "But what if it should appear that God really speaks to man, would this content you?" (*Alciphron*, Dial. IV.) Explain.

II.—*James.*

1. Explain the difference between Sensation and Perception, *or* distinguish two types of Illusions.

2. Explain the theory of Local Signs, *or* describe the perception of Space by the blind.

3. Write a note on the nature of Belief.

4. Sketch James' account of Reasoning, *or* of the intellectual contrast between man and brute.

B.A. HONOURS.

ZELLER'S STOICS, EPICUREANS AND SCEPTICS.

THURSDAY, MARCH 16TH :—MORNING, 9 TO 12.

Examiner,.....J. CLARK MURRAY, LL.D.

Write an essay on any one of the three schools—the Stoics, the Epicureans or the Sceptics, omitting details that are merely biographical.

B.A. HONOURS.

ARISTOTLE'S ETHICS.

WEDNESDAY, MARCH 22ND :—AFTERNOON, 2 TO 5.

Examiner,.....J. CLARK MURRAY, LL.D.

(*Answer only eight questions.*)

1. Define τέλος, ἐνέργεια, ἔργον, δύναμις, ἕξις.

2. Under which of these is ἀρετή included? Why?

3. Explain the ground of Aristotle's classification of ἀρεταὶ.

4. Explain, and illustrate by an example, his definition of ἀρεταὶ ἠθικαὶ

5. In what sense is this definition applicable to δικαιοσύνη?

6. In what sense is δικαιοσύνη to be understood, when it is said to be οὐ μέρος ἀρετῆς, ἀλλ' ὅλη ἀρετή?

7. Distinguish the different kinds of δικαιοσύνη.

8. Discuss the questions: (*a*) Can a man be unjust to himself? (*b*) Is it worse to inflict or to endure injustice?

9. Distinguish the different ἀρεταί διανοητικαί.

10. Define κακία, ἀκρασία, θηριότης, and give their several opposites.

11. Distinguish the different kinds of friendship.

12. Explain Aristotle's conception of what constitutes εὐδαιμονία.

B.A. HONOURS.

LORIMER'S INSTITUTES OF LAW.

MONDAY, MARCH 27TH :—AFTERNOON, 2 TO 5.

Examiner,.....J. CLARK MURRAY, LL.D.

Write a brief essay on any four of the following subjects:—

1. The relation of the Historical Method to the Philosophical;

2. The distinction between Perfect and Imperfect Obligations;

3. The relation of Jurisprudence and Ethics;

4. The relation of Liberty to Order and to Equality;

5. The Sources of Positive Law;

6. The Objects of Positive Law.

B.A. HONOURS.

LOGIC.

DESCARTES AND MILL.

THURSDAY, MARCH 30TH :—MORNING, 9 TO 12.

Examiners, ... { J. CLARK MURRAY, LL.D. / P. T. LAFLEUR, M.A.

1. Give, in outline, the maxims of Descartes for what he calls his "provisory code of Morals;" and discuss, with some fullness, any one of them.

2. Explain carefully the ground on which Descartes rests his fundamental principle, "cogito ergo sum." Criticize this as a philosophical starting point.

3. "All the things which we very clearly and distinctly conceive are true." Express some opinion as to the soundness, the value, and the limitations of this axiom.

4. Shew that, in the opinion of Descartes, error is not a pure negation, but has something of a positive character.

5. State the logical grounds of the Determinism of Mill. Give your own conclusions as regards the soundness of his argument.

6. What is the purpose of Sociology considered as a Science? Shew that both the *chemical* method (as Mill calls it) and the geometrical or abstract-method give but partial, one-sided results, when employed for the elucidation of social problems.

7. Contrast, in outline, the results obtained by the Historical Method with those obtained from *either* of the two methods mentioned in question (6).

B.A. HONOURS.

MAINE'S ANCIENT LAW.

MONDAY, APRIL 3RD :—MORNING, 9 to 12.

Examiner, ... J. CLARK MURRAY, LL.D.

1. Describe the jural condition of primitive Society.

2. By what agencies is Law adapted to the progress of Society?

3. Explain the influence of Stoical doctrine on Roman Jurisprudence.

4. (*a*) What was the unit of primitive society? (*b*) Explain any feature of Roman Law resulting from this.

5. Sketch the early history of Property *or* of Testaments *or* of Contract.

6. Sketch the development of the idea of Crime *or* the influence of Roman Law upon Latin Theology.

B.A. HONOURS.

THE PHILOSOPHY OF KANT.

WEDNESDAY, APRIL 12TH :—MORNING, 9 TO 12.

Examiner,..... ....J. CLARK MURRAY, LL.D.

(*Answer only eight questions.*)

1. Define the terms *A priori*, *Pure*, *Transcendental*, and *Transcendent*, as used by Kant.

2. Explain the question in which Kant sums up the problem of Pure Reason

3. Give a brief summary of the Transcendental Aesthetic.

4. Give Kant's table of the Categories, explaining the principle on which it is founded.

5. Give in detail the Principles of the Pure Understanding, explaining how they are derived from the Categories.

6. State what are the Ideas of Pure Reason, explaining the process by which they are formed.

7. Give the system of Cosmological Ideas, and the Antinomies founded upon them.

8. Explain how the Antinomies are solved, *or* give a critique of the arguments for the existence of the Ideal of Pure Reason.

9. Give an outline of the Analytic of Pure Practical Reason.

10. Explain Kant's definition of the Summum Bonum, and the Antinomy which it involves.

11. "The principle, that the form of nature implies purpose, is a transcendental principle of Judgment." Explain.

12. Give a summary of the Dialectic of Teleological Judgment.

B.A. HONOURS.

HISTORY OF MODERN PHILOSOPHY.

SATURDAY, APRIL 15TH:—MORNING, 9 TO 12.

Examiners, ... { J. CLARK MURRAY, LL.D.
PAUL T. LAFLEUR, M.A.

(*Write answers to* A *and* B *on separate papers.*)

A.

1. Sketch the philosophy of Hobbes in general outline, giving special prominence to his ethico-political views.

2. Explain the drift of Locke's philosophy, both in its negative and in its positive aspects.

3. Give an account of the Theodicy of Leibnitz.

4. Explain the special problem which Malebranche endeavored to solve, and the solution he offered.

5. Write a brief note on any three of the following:—Gassendi, Geulincx, Condillac, Wolff, Berkeley, Hume.

B

1. Give in outline the principal points in the psychological system of Hartley. Trace briefly the connection between Hartley and Locke. Discuss any *one* of the objections that may be urged against the materialist position of this school.

2. Contrast, from any point of view, the respective attitudes of Burke and of Godwin towards the fundamental problem of political science.

3. Explain briefly the Utilitarianism of Bentham. Show his application of it to any *one* department of practical life. Express some opinion as to the ethical value of his ultimate principle of moral judgment.

4. What is Herbert Spencer's view of the "Problem of Philosophy?

B.A. HONOURS.

GREEN'S PROLEGOMENA TO ETHICS.

THURSDAY, APRIL 20TH:—MORNING, 9 TO 12.

Examiner, ...J. CLARK MURRAY, LL.D.

1. "Can the knowledge of nature be itself a part or product of nature in that sense of nature in which it is said to be an object of knowledge?" Give an outline of Green's discussion of this question.

2. Explain the relation of man, as intelligence, to the spiritual principle n nature; *or* shew the *freedom* of man as intelligence.

3. "When Esau sells his birthright for a mess of pottage, his motive, we might be apt hastily to say, is an animal want." Explain Green's correction of this.

4. Explain the distinction and the relation of Intellect, Desire and Will.

5. Give the substance of Green's critique of Hedonism.

6. What is meant by the personal, what by the formal, character of the moral ideal?

7. Explain the difference between pleasure and common good.

8. Write a note on the Greek and the Modern conceptions of virtue.

9. Compare the practical value of Utilitarianism with that of the theory which makes human perfection the good.

B.A. HONOURS.

SPINOZA'S ETHICS.

MONDAY, APRIL 24TH:—MORNING, 9 TO 12.

Examiner, ...J. CLARK MURRAY, LL.D.

(*Answer only eight questions.*)

1. Describe the method and general divisions of the Ethics.

2. "Praeter Deum nulla dari potest neque concipi substantia" (I. 14). Explain the course of reasoning by which this proposition is reached.

3. "Deus est omnium rerum causa immanens, non vero transiens" (I. 18). Explain.

4. Explain how *cogitatio* and *extensio* are proved to be attributes of God.

5. "Ordo et connexio idearum idem est ac ordo et connexio rerum" (II. 7). Explain.

6. Explain the distinction (*a*) between the three kinds of knowledge, (*b*) between the three primitive emotions (affectus).

7. Define Action and Passion.

8. "Besides the pleasures and desires which are *passions*, there are other emotions of pleasure and desire, which belong to us in so far as we are *active*" (III. 58). Explain this, and show its bearing on the moral control of the emotions.

9. Define Bonum, Malum, Virtus.

10. Explian Spnioza's view of humility and penitence.

11. "Homo liber de nullia minus quam de morte cogitat, et ejus sapientia non mortis, sed vitae meditatio est" (IV. 67). Explain.

12. Give a summary of the fifth part of the Ethics.

FRENCH AND GERMAN.

FRENCH.

FIRST YEAR.

WEDNESDAY, APRIL 12TH:—MORNING, 9 TO 12.

Examiners..... { P. J. DAREY, M.A, LL.D.
J. L. MORIN, M.A.

1. Translate into English:—

Cléante. Mon Dieu! mon père, vous n'avez pas lieu de vous plaindre, et l'on sait que vous avez assez de bien.

Harpagon. Comment! J'ai assez de bien! Ceux qui le disent en ont menti. Il n'y a rien de plus faux; et ce ne sont que des coquins qui font courir ces bruits là. Cela est étrange, que mes propres enfants me trahissent, et deviennent mes ennemis.

Cléante. Est-ce être votre ennemi que de dire que vous avez du bien?

Harpagon. Oui. De pareils discours et les dépenses que vous faites seront cause qu'un de ces jours on me viendra chez moi couper la gorge, dans la pensée que je suis tout cousu de pistoles.

Cléante. Quelle grande dépense est-ce que je fais?

Harpagon. Quelle? Est-il rien de plus scandaleux que ce somptueux équipage que vous promenez par la ville? Je querellais hier votre sœur; mais c'est encore pis. Voilà qui crie vengeance au ciel; et, à vous prendre depuis les pieds jusqu'à la tête, il y aurait là de quoi faire une bonne

constitution. Je vous l'ai dit vingt fois, mon fils: toutes vos manières me déplaisent fort, vous donnez furieusement dans le marquis.

Molière l'Avare Ac. I Sc. V.

2. Write the *dénouement* (ending) of *l'Avare*. Write a sketch of the character of *Valère*.

3. Translate the following idiomatical and proverbial phrases of the *Avare* :—

(*a*) Gibier de potence. (*b*) Lorsque l'on n'a que faire. (*c*) Qui se sent morveux, qu'il se mouche. (*d*) Des cheveux de son cru. (*e*) Mangeant son blé en herbe. (*f*) Ton de poule laitée. (*g*) Il file doux. (*h*) Pour tout potage. (*i*) Il en passera par tout. (*j*) Je sais tirer mon épingle du jeu.

4. Write explanatory notes on :—

(1) The past participles of impersonal verbs.

(2) The past particle followed by an infinitive.

(3) The past particles *valu*, *coûté*, *fait*.

(4) Past particle preceded by *le peu*. And give examples of each.

5. With respect to the adverb of negation *ne*, explain by examples and in stating rules :—

(1) How it is completed. (2) With what verbs it is used alone. (3) When it is used alone with *il y a* and *depuis que*. (4) When it must be used and when suppressed, after the verbs (*a*) *craindre*, *trembler*, *empêcher*, *éviter*, and (*b*), after *douter*, *nier*, *contester* and *désespérer*.

6. Write on the different meaning or use of :—

1) *plus* and *davantage* ; (2) *plus tôt* and *plutôt* ; (3) *plus que* and *plus de*. (4) *au travers* and *à travers* ; (5) *entre* and *parmi* ; (6) *près de* and *prêt à*. (7) *durant* and *pendant*.

7. Translate into French :—

Few people are wise enough to prefer the blame which is useful to them to the praise which betrays them. Most people like to be flattered. That boy commences to swim very nicely. He asked his father for some money. We must listen to our superiors. Do you think that I am not a friend of yours? I must go in a place where I may enjoy rest. He is very quick, but he is good nevertheless. Whether he goes to Europe or stays in America, he will not be satisfied. Your paper and your ink are good.

8. Translate into French :—

I slept without waking. I could not sleep a wink. We have had a good dinner. Let us sit down on the grass. For my part I am not liable to sea-sickness. Is this trimming fashionable?

9. Translate into French :—

On the return of the spring, the savages resumed their arms and took the field. The old man, who was still sufficiently robust to bear the fatigues of war, went out with them, accompanied by his prisoner. The Abénakis marched more than two hundred leagues through the forests; at last they arrived at a plain, where they discovered a British encampment. The old man showed it to his prisoner, watching his countenance. "There are thy brothers," said he to him; "there are the enemies who are awaiting us to give us battle."

INTERMEDIATE EXAMINATION.

FRENCH.

WEDNESDAY, APRIL 12TH :—MORNING, 9 TO 12.

Examiners, ... { P. J. DAREY, M.A., LL.D. / REV. CHS. TANNER.

1. Translate into English :—

LUCILE.

Dût-on (*a*) souffrir ensuite, on est digne d'envie,
On a connu, du moins, les beaux jours de la vie.
Mais je crois, chère sœur, qu'un se repent bien plus
Des froides unions d'où l'amour est exclus.
Si c'est par la froideur, déjà, que l'on débute,
Jusqu'à l'antipathie on va de chute en chute.
Quand on est marié, le naturel secret,
Au bout d'un an, dit-on, s'échappe et reparaît ;
Chacun à ses défauts librement s'abandonne,
Et, moins on s'est aimé moins on se les pardonne,
Puisque le mariage est pesant quelquefois,
Il faut donc que l'amour en allége le poids,
Et que l'on puisse, en cas de mésintelligence,
S'aider d'un souvenir qui pousse à l'indulgence.

Ponsard, *L'Honneur et L'Argent*, Acte III, Sc. IV.

(*a*) What is the infinitive of the verb *dût?* At what tense is it?

(*b*) Write one person of all the simple tenses of that verb?

2. Translate also :—

L'homme n'est qu'un roseau, le plus faible de la nature ; mais c'est un roseau pensant. Il ne faut pas que l'univers entier s'arme pour l'écraser. Une vapeur, une goutte d'eau suffit pour le tuer. Mais quand l'univers

l'écraserait, l'homme serait encore plus noble, plus noble que celui qui le tue, parce qu'il sait qu'il meurt; et l'avantage que l'univers a sur lui, l'univers nen sait rien.

Pascal, les Pensées.

3. Mention the works of Bossuet, Scarron, Regnard, Molière and Racine, and give a sketch of two of them.

4. Who wrote le *Discours sur la Méthode*, *Venceslas*, le *Petit Carême*, le *Télémaque*, les *Maximes*?

5. Translate :—

The principal parts of a house are: the roof, cellar, rooms, windows, diningroon, bedrooms, partitions, staircase, wainscot, shutters, floor, ceiling.

6. Translate :—

Let usgo for an airing. Which way shall we go? I want to go home in good time. I am already tired. Do not go so fast. I am very happy to have me you. Do you stay long in this town. Give my regards at home. You do not look well, are you sick? I have a bad cold. I have a sore throat.

7. Translate into French :—

Rasselas returned home full of reflections, doubtful how to direct his future steps. Of the way to happiness he found the learned and simple equally ignorant; but as he was yet young, he flattered himself that he had time remaining for more experiments and further inquiries. He communicated to Imlac his observations and his doubts, but was answered by him with new doubts and remarks that gave him no comfort. He therefore discoursed more frequently and freely with his sister, who had yet the same hope with himself, and always assisted him to give some reason why, though he had been hitherto frustrated, he might succeed at last.

JOHNSON, *Rasselas*, chap. XXIII.

8. Translate into French: (for Arts students only)—

A beating of drums was heard in the redoubt. I saw all the guns lower down I shut my eyes, and I heard a frightful crash, followed by cries and groans. I opened my eyes, surprised to find me yet alive. The redoudt was again enveloped by smoke. I was surrounded with wounded and dead bodies. My captain was stretched at my feet: his head had been crushed by a cannon ball, and I was covered with his brain and his blood. Out of all my company there remained only six men and myself. To this carnage succeeded a moment of stupor. The colonel, placing his hat at the point ofsword, ascended first the parapet, crying *vive l'empereur!* He was immediately followed by all the survivors.

MÉRIMÉE, *l'enlèvement de la redoute.*

FRENCH.

THIRD YEAR.

MONDAY, APRIL 17TH :—MORNING, 9 TO 12.

Examiners, ... { P. J. DAREY, M.A., LL.D.
REV. J. L. MORIN, M.A.

(*Toutes les réponses doivent être faites en français.*)

1. Faites connaître les caractères d'Ulysse, d'Agamemnon et d'Eriphile dans Iphigénie. A qui le sujet de cette pièce est-il emprunté ? Esquissez le dénoûment de cette tragédie.

2. Quand Iphigénie parut-elle sur la scène française ? Qui en est l'auteur ? Quelles sont ses six principales tragédies ? Quelle comédie a-t-il écrite ? Donnez un aperçu de sa vie.

3. Traduisez en anglais :—

(*a*) Clytemnestre.

Oui, seigneur, nous partions ; et mon juste courroux (1)
Laissait bientôt Achille et le camp loin de nous :
Ma fille dans Argos courait pleurer sa honte (2)
Mais lui-même étonné d'une fuite si prompte,
Par combien de serments dont je n'ai pu douter,
Vient-il de me convaincre, et de nous arrêter !
Il presse cet hymen qu'on prétend qu'il diffère (3)
Et vous cherche, brûlant d'amour et de colère :
Près d'imposer (4) silence à ce bruit imposteur
Achille en veut connaître et confondre l'auteur.
Bannissez ces soupçons qui troublaient notre joie.

(*b*) Achille. Acte III, Scène I.

Madame, je me tais, et demeure immobile.
Est-ce à moi que l'on parle, et connaî-t-on Achille ?
Une mère pour vous croit devoir me prier !
Une reine à mes pieds se vient humilier, (4)
Et, me déshonorant par d'injustes alarmes,
Pour attendrir mon cœur on a recours aux larmes !
Qui doit prendre à vos jours plus d'intérêt que moi ?
Ah ! sans doute on s'en peut reposer sur ma foi. (5)
L'outrage me regarde ; et, quoiqu'on entreprenne,
Je réponds d'une vie où (6) j'attache la mienne.
Mais ma triste douleur va plus loin m'engager :
C'est peu de vous défendre, et je cours vous venger,
Et punir à la fois le cruel stratagème (7)
Qui s'ose de mon nom armer contre vous-même.

Iphigénie Acte III. Sec. VI.

4. (1) Quelle était la cause de ce *juste courroux?*

(2) Quelle était la cause de cette *honte?*

(3) Qui prétendait cela et pourquoi?

(4) Que dirait-on aujourd'hui?

(5) Rétablissez l'ordre grammatical.

(6) Quelle remarque avez-vous à faire sur ce mot?

(7) Quel était ce stratagème? et comment s'était-on armé du nom d'Achille contre Iphigénie?

5. (*a*) Quels furent les auteurs de la révolution littéraire au XIX siècle? (*b*) Quelle nouvelle école littéraire fut-elle fondée? Caractérisez-la. (*c*) Dans quels genres y eut-il les plus importantes réformes?

6. Donnez un aperçu de la vie de Delille, André Chénier, Victor Hugo Guizot. Thiers, Victor Cousin.

7. Dites en quel genre littéraire chacun de ces auteurs s'est illustré Citez quelques-uns de leur principaux ouvrages.

8. Quels sont les auteurs qui ont écrit: (*a*) Voyage du jeune Anacharsis. (*b*) Paul et Virginie. (*c*) Etudes de la Nature. (*d*) Traité des Études. (*e*) Mémoires d'outre-tombe. (*f*) Delphine. (*g*) Le Lac. (*h*) Cinq-Mars. (*i*) Lelia. (*j*) Portraits littéraires.

9. Traduisez en français :—

Cogery's Third French Course.

1 What! have you let that opportunity slip thus?

2. His father turned him out of doors.

3. Don't give in, we have only about a mile to go.

4. On the top of the hill there is a windmill, from which we can see the steamboats on the river and the railway in the distance.

5. Take care the bird does not fly away.

6. This man works beyond measure; he will injure his health.

7. It is a crime against the State to hold such ideas.

8. It will not be my fault if he does not get that situation.

9 I shall do nothing of the sort, unless you pay me in advance.

10. It is difficult to imagine a man so wrapped up in himself as he is

10. Traduisez en français :—

The eyes of the prince, when he heard this proposal, sparkled with joy The execution was easy, and the success certain. No time was now lost The hastened early in the morning to choose a place proper for their mine. They clambered with great fatigue among crags and brambles,

and returned without having discovered any part that favored their design. The second and the third day were spent in the same manner and with the same frustration. But on the fourth, they found a small cavern concealed by a thicket, where they resolved to make their experiment.

Imlae procured instruments proper to hew stone and remove earth, and they fell to their work on the next day with more eagerness than vigor.

JOHNSON, *Rosselas*.

FRENCH.

B.A. ORDINARY.

MONDAY, APRIL 17TH:—MORNING, 9 TO 12.

Examiners, ... { P. J. DAREY, M.A., LL.D. / REV. J. L. MORIN, M.A.

1. Faites l'analyse d'Iphigénie. A qui le sujet est-il emprunté? Quel caractère Racine y a-t-il ajouté? et pourquoi?

2. Traduisez les vers suivants d'*Iphigênie:* indiquez et corrigez les expressions tombées en désuétude, ou les mots pris dans une acception qu'ils n'ont plus aujourd'hui; où il y a ellipse rétablissez l'ordre grammatical:—

(1) Et ce vainqueur, suivant de près sa renommée,
Hier avec la nuit arriva dans l'armée.

(2) Seigneur, honorez moins une faible conquête:
Et que puisse bientôt le ciel, qui nous arrête,
Ouvrir un champ plus noble à ce cœur excité
Par le prix glorieux dont vous l'avez flatté!

(3) .....Ses rois, qui pouvaient vous disputer ce rang,
Sont prêts pour vous servir de verser tout leur sang.

(4) Et qui, de son destin qu'elle ne connaît pas,
Vient, dit-elle, en Aulide interroger Calchas.

(5) Mon cœur se met sans peine en la place du vôtre.
Et, frémissant du coup qui vous fait soupirer,
Loin de blâmer vos pleurs, je suis prêt de pleurer.

(6) Ecoute, et tu te vas étonner que je vive.

(7) Je me laissai conduire à cet amable guide.

(8) Aux affronts d'un refus craignant de vous commettre,
Il m'avait par Arcas envoyé cette lettre.

(9) Tout succède, Madame, à mon empressement.

(10) Où sont-ils, ces combats, que vous avez rendus?

3. Traduisez en anglais :—

IPHIGÉNIE.

Au nom des dieux,
Madame, retenez un amant furieux ;
De ce triste entretien détournons les approches.
Seigneur, trop d'amertume aigrirait vos reproches.
Je sais jusqu'où s'emporte un amant irrité ;
Et mon père est jaloux de son autorité.
On ne connaît que trop la fierté des Atrides.
Laissez parler, seigneur, des bouches plus timides,
Surpris, n'en doutez point, de mon retardement,
Lui-même il me viendra chercher dans un moment,
Il entendra gémir une mère oppressée ;
Et que ne pourra point m'inspirer la pensée
De prévenir les pleurs que vous verseriez tous,
D'arrêter vos transports et de vivre pour vous!

4. En combien de périodes distinctes peut se diviser le mouvement littéraire en France pendant le dix-neuvième siècle ? Quelle fut l'influence de Napoleon Ier. sur la littérature ? Quels sont les principaux romanciers et les principaux dramaturges de la période qu'il représente ?

5. Caractérisez l'école romatique ; quels en sont les chefs ? Quelles réformes opéra-t-elle dans la littérature dramatique, dans la poésie lyrique et dans le roman ?

6. En combien d'écoles se partagent les historiens de la Restauration ? Quels en sont les chefs et les meilleurs interprètes, et quels sont leurs principaux ouvrages ?

7. En quel genre littéraire les auteurs suivants se sont-ils distingués : De Sismondi, Xavier de Maistre, Volney, Victor Cousin, Andrieux, Villemain, Béranger, Lamennais, Sainte-Beuve, George Cuvier. Citez leurs principaux ouvrages. Sous quel régime vivaient-ils respectivement ?

8. Traduisez en français :—

This is their notion of virtue and pleasure. They think that no man's reason can carry him to a truer idea of them, unless some discovery from Heaven should inspire him with a sublimer notion. I have not now the leisure to examine whether they think right or wrong in this matter ; nor do I judge it necessary, for I have only undertaken to give you an account of their constitution, but not to defend all their principles. I am sure that whatever may be said of their notions, there is not in the whole world either a better people or a happier government ; their bodies are vigorous and lively ; and though they are but of middle stature, and have neither the fruitfullest soil nor the purest air in the world, yet they fortify themselves so well by their temperate course of life, against the un-

healthiness of their air, and by their industry they so cultivate their soil, that there is nowhere to be seen a greater increase both of corn and cattle, nor are there anywhere healthier men and freer from diseases.

Thomas More, Utopia.

9. Traduisez en français :—

(1) There is nothing to be done, but make the best of it.

(2) He waited till I resumed my seat.

(3) Wheat is sold at the same price as yesterday.

(4) We are afraid that he will not gain the office, yet we do not doubt that he is fit for it.

(5) He fell going upstairs, and nearly broke his arm.

(6) It is of no avail to promise to be diligent if you do not keep your promise.

(7) He reproached me for my ingratitude, but I only laughed at it.

(8) I was over head and ears in debt, but at last I conquered my difficulties.

(9) She was within a very little of falling, although I held her hand.

(10) You are really to be pitied, it is to be wished that you were more successful in your business.

Cogery's Third French Course.

B.A. HONOURS.

FRENCH.

TUESDAY, APRIL 11TH :—MORNING, 9 TO 12.

Examiner,.....P. J. DAREY, M.A., LL.D.

1. De combien de couches de mots notre vocabulaire se compose-t-il ? Donnez-en trois exemples.

2. Citez des mots dont le sens a changé dans le cours de leur histoire.

3. Qu'est-ce que la *métaphore*, la *catachrèse* et la *métonymie ?* Donnez un exemple de chacune.

4. Quand la disparition des déclinaisons eut-elle lieu ? Qu'est-ce qui contribua à leur disparition ?

5. Quand le mot *certain* est-il adjectif et quand est-il pronom ? Que remarquez-vous sur le sens de *certain* lorsqu'il est adjectif ? Comparez il y a des vérités *certaines*, et, il y a de *certaines* vérités.

6. Quelle est l'étymologie de *rien ?* Que signifiait-il dans l'ancienne langue ? Que veut-il dire à présent ? Toujours ?

7. Qu'est-ce que la chanson de Roland? A quelle époque a-t-elle été écrite? Par qui? Où l'a-t-on retrouvée?

8. Donnez une analyse de cette chanson.

9 En quoi consiste la beauté de ce poème?

DE LA MORT DE LA BELLE AUDE, FIANCÉE DE ROLAND.

10. Ecrivez en français moderne:

Li emperédre est repaidriez d'Espaigne
Et vient ad Ais, al meillor siét de France;
El palais montet, est venuz en la sale.
Es li venude Alde, une bèle dame.
Ço dist al rei: "Ou'st Rodlanz li chataignes,
Qui me jurat a prendre en mariage?"
Charles en at e dolor e pesance:
Plorot des uelz, tiret sa barbe blanche:
"Suer, chière amie, d'ome mort me demandes
Jo t'en donrai molt enforciét eschange:
Ço'st Lodoïs, meillor n'en sai en France;
Il est mes filz e si tendrat mes marches."
Alde respont: Cist moz mei est estranges.
Ne placet Dieu ne ses sainz ni ses angeles
Après Rodland que jo vive remaigne!"
Pert la color, chiét as piez Charlemaigne;
Sempres est morte: Dieus ait mercit de l'àneme
Franceis baron en plorent, si la plaignent.

Chanson de Roland.

11. Sous combien de rois de France Montaigne vécut-il?

12. Ecrivez une courte biographie de sa vie. Comment devint-il l'héritier du chateau de Montaigne?

13. Quelle fut sa première publication?

14. A quelle date commença-t-il à écrire ses *Essais*? Quel est le sujet de ses *Essais* Quelle en est l'épigraphe? Qu'est-ce qu'il en dit lui-même?

15. Quels sont les chapitres les plus remarquables des *Essais*?

16. Comparez la conduite de Montaigne comme maire de Bordeaux, avec celle deRotrou comme maire de Dreux.

17. Comment mourut-il?

18. Ecrivez en français moderne:

Aussi bien est-ce une opinion receuë d'un chacun que ce n'est pas raison

de nourrir un enfant au giron de ses parens ; cette amour naturelle les attendrist trop et relasche, voire les plus sages ; ils ne sont capables ny de chastier ses fautes ni de le voir nourry grossièrement comme il faut et hazardeusement ; ils ne le scauroient souffrir revenir suant et poudreux de son exercice, boire chaud, boire froid, ny le voir sur un cheval rebours, ny contre un rude tireur le floret au poing, ou la première harquebuse. Car il n'y a remède : qui en veut faire un homme de bien, sans doute, il ne le faut épargner en cette jeunesse ; et il faut souvent choquer les règles de la médecine. Ce n'est pas assez de lui roidir l'âme, il luy faut aussi roidir les muscles ; elle est trop pressée, si elle n'est secondée ; et a trop à faire de, seule, fournir deux offices. Je sçay combien ahanne la mienne en compaignie d'un corps si tendre si sensible qui se laisse aller sur elle ; et apperçoy souvent, en ma leçon, qu'en leurs escrits mes maistres font valoir, pour magnanimité et force de courage, des exemples qui tiennent volontiers plus de l'espessissure de la peau et dureté des os.

MONTAIGNE, ch. XXV.

B.A. HONOURS.

SATURDAY, APRIL 15TH :—MORNING, 9 TO 12.

Examiner,.....P. J. DAREY, M.A., LL.D.

1. Ecrivez une courte biographie de Souvestre.

2. Quels sont les principaux écrits de Souvestre ?

3. Par quoi les écrits de Souvestre sont-ils remarquables ?

4. Qu'est-ce que le *Philosophe sous les toits ?*

5. Faites le résumé des XIe et XIIe chapitres.

6. Faites connaître la vie de La Rochefoucauld ? Qui étaient ses amis ? A-t-il beaucoup écrit ? Quelle education reçut-il ?

7. Comment composait-il les *Mexímes ?* Sont-elles justes au point de vue de la morale ? Quel est le fond de la morale de La Rochefoucauld ? Comment l'explique-t-on ? En quoi est-elle contraire à celle de l'Evangile ?

8. Citez une dizaine des Maximes de La Rochefoucauld.

9. Ecrivez une analyse aussi complète que vous pourrez du drame d'Hernani.

10. Décrivez les caractères l'Hernani, de Don Ruy Gomez et de Charles Quint. Signalez les qualités et les défauts de cette pièce.

11. Traduisez en anglais :—

—Les hommes !—c'est à dire une foule, une mer
Un grand bruit ; pleurs et cris, parfois un rire amer
Plainte qui, réveillant la terre qui s'effare,
A travers tant d'échos, nous arrive fanfare !
Les hommes —des cités, des tours, un vaste essaim—
De hauts clochers d'église à sonner le tocsin !—
Base de nations portant sur leurs épaules
La pyramide énorme appuyée aux deux pôles,
Flots vivants qui toujours l'étreignant de leurs plis
La balancent, brûlante à leur vaste roulis,
Font tout changer de place et, sur ses hautes zones
Comme des escabeaux, font chanceler les trônes,
Si bien que tous les rois, cessant leurs vains débats,
Lèvent les yeux au ciel.....—Rois, regardez en bas !
—Ah ! le peuple !—océan ! onde sans cesse émue !
Vague qui broie un trône et qui berce un tombeau !
Miroir où rarement un roi se voit en beau !
Ah ! si l'on regardait parfois dans ce flot sombre,
On y verrait au fond des empires sans nombre,
Grands vaisseaux naufragés, que son flux et reflux
Roule, et qui le gênaient, et qu'il ne connaît plus
—Gouverner tout cela !—Monter si l'on vous nomme,
A ce faîte !—Y monter sachant qu'on n'est qu'un homme !
—Avoir l'abîme là.....— Pourvu qu'en ce moment
Il n'aille pas me prendre en éblouissement !
Oh ! d'états et de rois mouvante pyramide,
Ton faîte est bien étroit !—Malheur au pied timide !
A qui me retiendrai-je ?..... Oh, si j'allais faillir
En sentant sous mes pieds le monde tressaillir !
En sentant vivre, sourdre et palpiter la terre !—

FRAGMENT D'HERNANI

B.A. HONOURS.

FRIDAY, APRIL 21ST :—MORNING 9 TO 12.

Examiner,.....P. J. DAREY, M.A., LL.D.

1. Qui étaient les Albigeois ? Faites connaître le poème des Albigeois.

2. Qu'est-ce qu'on appelle romans allégoriques ? Citez les deux plus fameux du Moyen-Age. Décrivez les.

3. Dites tout ce que vous savez sur la vie et les écrits de Rabelais. Sur Blaise de Montluc. Sur Agrippa d'Aubigné.

4. Quelle espèce de comédie est le Misanthrope de Molière ?

5. Qu'est-ce que Molière a voulu tourner en ridicule dans le *Misanthrope* ?

6. Donnez une courte analyse du *Misanthrope*.

7. Traduisez en anglais :—

Alceste. Parbleu ! je ne vois, lorsque je m'examine,
Où prendre aucun sujet d'avoir l'âme chagrine ;
J'ai du bien, je suis jeune, et sors d'une maison
Qui peut se dire noble avec quelque raison ;
Et je crois par le rang que me donne ma race
Qu'il est fort peu d'emplois dont je ne sois en passe
Pour le cœur, dont surtout nous devons faire cas,
On sait sans vanité que je n'en manque pas ;
Et l'on m'a vu pousser dans le monde une affaire
D'une assez vigoureuse et gaillarde manière.
Pour de l'esprit, j'en ai, sans doute ; et du bon goût,
A juger sans étude et raisonner de tout ;
A faire aux nouveautés, dont je suis idolâtre,
Figure de savant sur les bancs de théâtre ;
Y décider en chef et faire du fracas
A tous les beaux endroits qui méritent des has !
Je suis assez adroit ; j'ai bon air, bonne mine,
Les dents belles surtout et la taille fort fine.
Quant à se mettre bien, je crois, sans me flatter,
Qu'on serait mal venu de me le disputer.

Molière, Le Misanthrope, Ac. III, Sc. 2.

8. Traduisez en français :—

Adam. Dear master, I can go no further. O, I die for food ! Here lie I down and measure out my grave. Farewell, kind master.

Orlando. Why, how now, Adam ! no greater heart in thee ? Live a little ; comfort a little ; cheer thyself a little. If this uncouth forest yield anything savage, I will either be food for it, or bring it for food to thee. Thy conceit is nearer death than thy powers. For my sake, be comfortable ; hold death a while at arm's end : I will here be with thee presently ; and if I bring thee not something to eat, I'll give thee leave to die : but if thou diest before I come, thou art a mocker of my labour. Well said ! thou lookest cheerly ; and I'll be with thee quickly. Yet thou liest in the bleak air. Come, I will bear thee to some shelter ; and thou shalt not die for lack of a dinner if there live anything in this desert. Cheerly good Adam !

Shakespere, as you like it. Ac. II, Sc. 2.

GERMAN.

FIRST YEAR.

GRAMMAR AND ADLER'S READER.

WEDNESDAY, APRIL 12TH :—AFTERNOON, 2 TO 5.

Examiner,.....L. R GREGOR, B.A.

1. Give the nominative plural of the following substantives :—

Gott	Wolf	Frosch	Ohr	Vetter
Buch	Stadt	Mutter	Pferd	Vorhang

2. (*a*) Give the third person singular of all tenses of the indicative, subjunctive and conditional of the passive voice of any verb, with English meaning or name of tense. (*b*) How is the past participle of a weak verb formed from the verb-stem? (*c*) How is the imperfect subjunctive of strong verbs formed? (*d*) What is the first person of the imperfect subjunctive of *fallen*?

3. Decline *a good child* and *that high tree* in the singular.

4. Give the other principal parts of :—

betrügen, senden, lügen, wiegen, fechten, schieszen, gieszen, beiszen, denken, erlöschen.

5. Distinguish between

(*a*) Das Mittagessen war serviert, als wir ankamen

(*b*) " " wurde " " " "

State the general principle, giving further examples.

6. (*a*) How is the relative pronoun *welcher* declined?

(*b*) What kinds of antecedents may the pronoun *was* have?

7. (*a*) How are adjectives of color used substantively declined? (*b*) What is the peculiarity of the inflection of *hoch*? (*c*) How do you decline adjectives in *er* formed from names of places? (*d*) Give an example of a German absolute superlative. (*e*) Give an example of the adverbial form of the superlative.

8. What model does (*a*) the declension of the possessive pronoun *meiner* follow? (*b*) the strong declension of adjectives? (*c*) the possessive pronoun *der unsrige*. (*d*) Decline *desgleichen*. (*e*) Make a general statement as to the declension of *was für ein*.

9. (*a*) Sie sagent dasz es wahr *sei*. Explain fully the employment of *sei*. (*b*) What is the gender of seasons? (*c*) letters of the alphabet? (*d*) metals?

10. Mention five classes of neuter nouns. Give genders, meanings and nominative plural of *Band*.

11. Translate :—

(*a*) I am laughing because the child plays so merrily. (*b*) I believe that Charles has bought himself a hat. (*c*) My father sent me instead of Max, because Max was too tired. (*d*) The asking of questions is very easy but the answering is very difficult. (*e*) The girl hangs the bird cage before the window in the sun. (*f*) What were you thinking of when you met me yesterday? (*g*) I like to hear the singer who sang in the concert yesterday. (*h*) The gardener was burning the boughs which he had cut from the trees. (*i*) the professor seemed not to be at home, for his windows were not open. (*j*) If Charles tears his new book, his mother will be very angry.

12. Translate:—(*a*) Er spannte seinen Bogen und schosz so mitten in das bemerkte Ziel, dasz Jupiter keine Möglichkeit sah, ihn zu übertreffen. (*c*) Der gute Mann würde dieses noch ganz erträgliche Stück auch nicht hervorgebracht haben, wenn ihm nicht die Materie der alten Bildsäule dabei zu Statten gekommen wäre. (*c*) „Ich musz nun schon mein Liebstes daran wenden, um zu meinem Zweck zu gelangen!" dachte der Wolf und kam zu dem sechsten Schäfer. (*d*) Er erzählte ihm Manches über den Feldbau, aus seiner Haushaltung und wie er zuweilen des Sonntags auch sein Huhn in dem Topfe habe, und merkte lange nichts

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FIRST YEAR.

GRAMMAR AND ADLER'S READER.

THURSDAY, MARCH 30TH:—9 TO 12, A.M.

Examiner,.....L. R. GREGOR, B.A.

1. (*a*) How are predicative adjecti ves declined ? (*b*) What is the fixed position of the verb in a principal sentence ? (*c*) What is the position of the verb in a dependent sentence ? (*d*) In compound tenses what is regarded as the verb ? (*e*) Mention one class of verbs which take the auxliary *sein*.

2. Which prepositio ns govern : (*a*) the accusative only ? (*b*) the gentive only ?

3. (*a*) Give the first person singular of all tenses of the indicative, subjunctive and conditi onal moods of the verb sein, with English meaning or name of tense. (*b*) How is the past participle of a weak verb formed from the verb stem. (*c*) Give the first person singular imperfect indicative active and the first person singular imperfect subjunctive active of any strong verb.

4. Give the nominative plural of the following substantives :—

Kleid	Blume	Kardinal	Schwester	Handschuh.
Hund	Geist	Spaziergang	Wagen	Gast.

5. (*a*) What is the difference between the German for *they* and for *you*? (*b*) What do you know about the past participle of foreign verbs in *iren*? (*c*) In what circumstances is *when* rendered into German by *wann*? (*d*) .....by *als*?

6. What is the gender of (*a*) names of countries? (*b*) countries ending in *ei*? (*c*) the months? (*d*) metals? (*e*) diminutives?

7. Decline the relative pronoun *der* in the singular.

8. Decline *which long lesson* and *a good son* in the singular.

9. Distinguish between (*a*) Die Laden werden jetzt geschlossen.
and (*b*) " " sind " "
State the general principle, giving further examples.

10. Give the other principal parts of :—

{ gleiten { leiden	fliegen ergreifen	schneiden ziehen	heben genieszen.
{ beiszen { riechen			

11. Compare gut, nah, viel, wenig

12. Give the three forms of the masculine singular of the pronoun *his* in German. Describe their declension in general terms.

13. Translate :—

(*a*) This gentleman would buy my houses, if he had money enough.
(*b*) The churches of this city are large and beautiful.
(*c*) The huntsman shot a hare and brought it home.
(*d*) June, July and August are very hot in Canada.
(*e*) When we hastened home yesterday, it was raining heavily.
(*f*) What was burning? The gardener was burning leaves.
(*g*) This mother buys her children something useful.
(*h*) The soldier had been wounded by a ball.
(*i*) When Mary was young, she resembled her mother.
(*j*) Waiter, please bring me the vinegar and the pepper.

14. Translate :—(*a*) Es ist mit dem Geschenke der Hörner ein anderes verbunden, das euch so angenehm nicht sein möchte. (*b*) Schütze mich vor dem Hunger, mache mich nur satt, und du sollst mit mir recht zufrieden sein. (*c*) Hätte es vorigen Winter von dir abgehangen, so würden wir keinen Frühling gehabt haben.

(*d*) „Mein Sohn, was birgst du so bang dein Gesicht?"
„Siehst, Vater, du den Erlkönig nicht?
Den Erlenkönig mit Kron' und Schweif?"
„Mein Sohn, es ist ein Nebelstreif."

INTERMEDIATE EXAMINATION.

WEDNESDAY, APRIL 12TH :—AFTERNOON, 2 TO 5.

Examiner,.....L. R. GREGOR, B.A.

Adler's Reader; Immermann—Der Oberhof; Grammar.

1. Give the nominative plural of the following substantives:

Weib	Held	Gewand	Köni
Strumpf	Wurm	Freundin	Stadt
Nuß.			
Korb.			

2. Translate:—The dog has lost *its* bone; the flower has lost *its* leaves. Comment fully on the words in italics.

3. Translate:—The streets of London; the fortifications of Paris; the city of London; the mayor of Montreal; Max's books; at a bookseller's.

4. Decline in the singular the German for (*a*) *this sick child*, (*b*) *tired boy*.

5. Give the three principal parts of: die, succeed, pull, ring, disappear, enjoy, force, offer, pour, flee.

6. What are the various German equivalents of the English word *that?* Compose short sentences illustrating each rendering.

7. Give eight inseparable prefixes of verbs. State all points of difference between the use of verbs with separable and the use of verbs with inseparable prefixes, giving well-composed sentences as examples.

8. Illustrate with well-composed sentences the adverbial and adjectival forms of an adjective in the superlative degree.

9. Give the third pers. sing. with English meaning or name of tense of all the tenses of the indicative, subjunctive and conditional moods of haben.

10. Distinguish fully between wenn, wann and als. Illustrate with well-composed sentences

11. Translate:—(*a*) The asking of questions is very easy, but the answering is very difficult. (*b*) The difference between my brother and me is not great. (*c*) I believe that I know the man who *is in*

front of the house. (*d*) If she had not been hoarse, she would have sung. (*e*) The shops have been shut earlier this week. (*f*) My sister is learning the song which was sung at the concert yesterday. (*g*) The industrious countryman cut the grass yesterday and is making hay to-day. (*h*) To whom were you writing the long letter yesterday. (*i*) The golden slipper was too small for Cinderellas sister's. (*j*) This painter is not so celebrated as his father, but his pictures are just as fine. (*k*) Such happy days I have never yet passed. (*l*) Where is the tree to which the traveller tied his horse?

12. Translate:—A. "Die Königstochter soll sich in ihrem fünfzehnten Jahr an einer Spindel stechen und tot hinfallen." Und ohne ein Wort weiter zu sprechen, kehrte sie sich um und verließ den Saal. Alle waren erschrocken, da trat die zwölfte hervor, die ihren Wunsch noch übrig hatte, und weil sie den bösen Spruch nicht aufheben sondern nur ihn mildern konnte, so sagte sie: "Es soll aber kein Tod sein, sondern ein hundertjähriger tiefer Schlaf, in welchen die Königstochter fällt."

B. „Armes Gesindel," erwiederte der junge Pachter, „dem Anscheine nach Zigeunervolk, die in der Ferne rauben und betrügen und hier vielleicht ihren Schlupfwinkel haben. Mich wundert nur, daß die gnädige Herrschaft sie duldet."

C. Wer aber glaubt, daß diese vergebliche Mühe sie in Kümmerniß gestürzt habe, der irrt; ihr konnte nichts etwas anhaben, sie erzählte ihre beschwerlichen Wanderungen mit heiterem Munde.

D. Immer wollten sie den Varus in der Richtung auf Aliso, wovon doch auch noch kein Mensch ausgeforscht hat, wo es eigentlich gelegen — genug aber mitternachtwärts — sich zurückziehen lassen.

13. What historical event is referred to in piece D?

INTERMEDIATE EXAMINATION.

ADLER'S READER.—GRAMMAR.

THURSDAY, MARCH 30TH:—MORNING, 9 TO 12.

Examiner,..... L. R. GREGOR, B.A.

1. Conjugate the present indicative of *sich schämen,* and the future indicative of *sein.*

2. Distinguish between *in dem Zimmer* and *in das Zimmer.* State the rule.

3. Translate: (*a*) four, (*b*) the fourth, (*c*) four times, (*d*) the quarter, (*e*) fourthly, (*f*) on the fourth of May.

4. Give the nominative plural of the following substantives:

Thaler, Stuhl, Nachbar, Wunsch, Nacht, Blume, Name, Dorf, Ohr, Tag.

5. Decline *which good child* and *my young son* in the singular.

6. Give the three principal parts of the following verbs: come, see, break, find, take, be, steal, speak, begin, freeze.

7. Translate:—The count was with his huntsman and his (his own) dogs. How would you translate *his* if it meant *the huntsman's?*

8. Like what model do you decline:— (*a*) derjenige, (*b*) jener (pronoun), (*c*) deiner (pronoun), (*d*) mein (poss. adj.), (*e*) guter (Wein)?

9. Translate:—This bridge was being built ten years ago. Explain the employment of the auxiliary in this sentence.

10. (*a*) Translate:—The lake is broader than the river, but the sea is *the broadest.* Comment on the words in italics. (*b*) Give an example of a relative superlative in German.

11. (*a*) Translate:—Would you buy a horse if you were rich? (*b*) This countryman lives on a heath near the lake. (*c*) Was the soldier in the hospital wounded or was he ill? (*d*) We have looked for William's books and ours everywhere. (*e*) I am laughing because the child is playing so merrily. (*f*) Where do you generally pass the winter? (*g*) George lost his parents whilst he was still very young. (*h*) We found the money we lost a week ago.

12. (*a*) Rings um das Schloss aber begann eine Dornenhecke zu wachsen, die jedes Jahr höher ward und endlich das ganze Schloss umzog und darüber hinaus wuchs, dass gar nichts mehr davon zu sehen war, selbst nicht die Fahne auf dem Dach. Es gieng aber die Sage in dem Land von dem schönen schlafenden Dornröschen, denn so ward die Königstochter genannt, also dass von Zeit zu Zeit Königssöhne kamen und durch die Hecke in das Schloss dringen wollten.

(*b*) Es begab sich aber, dass der König ein Fest anstellte, das drei Tage dauern sollte, und wozu alle schönen Jungfrauen im Lande eingeladen wurden, damit sich sein Sohn eine Braut aussuchen möchte. Die zwei Stiefschwestern, als sie hörten, dass sie auch dabei erscheinen sollten, waren guter Dinge, riefen Aschenputtel und sprachen: "Kämm' uns die Hare, bürste uns die Schuh' und mache uns die Schnallen fest, wir gehen zur Hochzeit auf des Königs Schloss."

(*c*) Aber wie war sie verwundert! Der bunteste fröhlichste Blumen-

garten umgab sie, in welchem Tulpen, Rosen und Lilien mit den herrlichsten Farben leuchteten; blaue und goldrote Schmetterlinge wiegten sich in den Blüten; in Käfigen aus glänzendem Drahte hingen an den Spalieren vielfarbige Vögel, die herrliche Lieder sangen, und Kinder in weiszen kurzen Röckchen mit gelockten gelben Haren sprangen umher.

THIRD YEAR.

MONDAY, APRIL 17TH:—MORNING 9 TO 12.

Examiner,.....L. R. GREGOR, B.A.

Lessing—Minna von Barnhelm; Schiller—Die Belagerung von Antwerpen; Literature—Bernhardt; Grammar.

N.B.—Questions expressed in German are to be answered in German.

1. Translate in Minna von Barnhelm:—

   A. Act I., Scene 2.

   Sie wären.....Juwelen.

   B. Act IV., Scene 6.

   Die Stände.....Ich lache ja

   C. Act V., Scene 9.

   Nicht so, mein Herr!.....Schicksals.

2. Comment on the (*a*) national, (*b*) humane and (*c*) conciliatory tendency of this play.

3. Give a brief account of Lessing's life and works.

4. Comment on the following:

   (*a*) Behüte! veritabler Danziger! echter, doppelter Lachs!
   (*b*) Doch nicht die Pistolen.
   (*c*) Künftige Lichtmeß.
   (*d*) Das Geld liegt parat.
   (*e*) das vermaledeite Haus.

5. Translate in Die Belagerung von Antwerpen:

   A. So große Ursachen.....aufgethan.

   B. Unterdessen rückte der Zug.....erfüllte.

6. Wie und woraus entstand das Nibelungenlied?

7. Was bedeutet das Wort „Minnesänger"? Wie heißt der größte Minnesänger?

8. Beschreiben Sie den Zustand Deutschlands während des dreißigjährigen Krieges.

9. Wodurch hat Luther einen so großen Einfluß auf das deutsche Volk geübt?

10. Erwähnen Sie die Hauptelemente der intellektuellen Revolution des sechzehnten Jahrhunderts.

11. Geben Sie einen Beweis des starken Eindruckes, den „Robinson Cruose" auf die Gemüter der Deutschen gemacht hat.

12 Beschreiben Sie Klopstocks Meisterwerk.

13.. Welches ist die Hauptidee des „Laokoon"?

14. Nennen Sie die Hauptwerke Lessings.

15. Erklären Sie den Realismus Goethes und den Idealismus Schillers.

16. Erwähnen Sie die Hauptdramen (*a*) Schillers ....(*b*) Goethes. (*c*) Wie heißen Goethe's größte Werke von der Sturm—und Drangperiode?

17. Translate:—The fourth, fourthly, four times, four and a half, forty, four o'clock, half-past four, the quarter, quadruple, of four kinds.

18. Give the principal parts of the following verbs: strike, command, take, hide, spoil.

B. A. ORDINARY EXAMINATION.

THURSDAY, MARCH 30TH :—MORNING 9 TO 12.

Examiner.....L. R. GREGOR, B.A.

Schiller—Wallenstein ;—Goethe—Dichtung and Wahrheit ; Literature—Bernhardt ; Translation from English ; Goet' s Jugend.

N. B.—Questions expressed in the German language are to be answered in the same.

Wallenstein.

I. Translate :—

A. Verschmerzen werd' ich diesen Schlag, das weiß ich,
Denn was verschmerzte nicht der Mensch ! Vom Höchsten
Wie vom Gemeinsten lernt er sich entwöhnen,
Denn ihn besiegen die gewalt'gen Stunden.
Doch fühl' ich's wohl, was ich in ihm verlor.
Die Blume ist hinweg aus meinem Leben,
Und kalt und farblos seh' ich's vor mir liegen.
Denn er stand neben mir, wie meine Jugend,
Er machte mir das Wirkliche zum Traum,
Um die gemeine Deutlichkeit der Dinge
Den gold'nen Duft der Morgenröte webend.
Im Feuer seines liebenden Gefühls
Erhoben sich, mir selber zum Erstaunen,
Des Lebens flach alltägliche Gestalten.

B. Und thut er unrecht, daß er von mir geht ?
Er folgt dem Gott, dem er sein lebenlang
Am Spieltisch hat gedient. Mit meinem Glücke
Schloß er den Bund und bricht ihn, nicht mit mir.
War ich ihm was, er mir ? Das Schiff nur bin ich,
Auf das er seine Hoffnung hat geladen,
Mit dem er wohlgemut das freie Meer
Durchsegelte ; er sieht es über Klippen
Gefährlich geh'n und rettet schnell die Ware.

Leicht, wie der Vogel von dem wirtbar'n Zweige,
Wo er genistet, fliegt er von mir auf,
Kein menschlich Band ist unter uns zerrissen.
Ja, der verdient, betrogen sich zu seh'n,
Der Herz gesucht bei dem Gedankenlosen!

2. Make brief notes, historical, explanatory, critical, etc., on the following passages.

(*a*) Max:—

Ihr reißt mich weg von meinem Glück, wohlan,
Der Rachegöttin weih' ich eure Seelen!

(*b*) Wallenstein:—

Denn lane war er (Mars) feindlich mir gesinnt
Und schoß mit senkrecht — oder schräger Strahlung,
Bald im Gevierten, bald im Doppelschein,
Die roten Blitze meinen Sternen zu
Und störte ihre segenvollen Kräfte.

(*c*) Daran erkenn' ich meine Pappenheimer.

(*d*) Thekla:—

Die Schuld ist mein. Ich selbst entriß es Ihnen,
Sie waren nur die Stimme meines Schicksals
Gräfin.
Es ist zu spat.
In wenig Augenblicken ist mein Schicksal.
Erfullt.

3. (*a*) Welches Versmoß gebraucht Schiller in diesem Theil des Dramas? (*b*) Ist das „Lager" in demselben Versmaß geschrieben? (*c*) Scandiren Sie die folgenden Zeilen.

1. Nicht gegen mich — Wenn Haupt und Glieder sich trennen,
2. Gut' Nacht, Gordon.
3. Sie senden uns in Lutherische Länder?

Wie betont man gewöhnlich L u t h e r i s ch?

4. What are the main deviations from the facts of History in this portrait of Wallenstein's period?

5. (*a*) „So hört nur noch dieses: bedenkt, daß es das Unhörteſt iſt, was dieſem Manne, was dieſer Familie begegnen könnte. Ihr hattet nicht Urſache, von dem guten Willen des Hausherrn erbaut zu ſein; aber die Hausfrau iſt allen Euren Wünſchen zuvorgekommen, und die Kinder haben Euch als ihren Oheim betrachtet. Mit dieſem einzigen Schlag werdet Ihr den Frieden und das Glück dieſer Wohnunge auf ewig zerſtören. Ja, ich kann wohl ſagen eine Bombe, die ins Haus gefallen wäre, würde nicht größere Verwüſtungen darin angerichtet haben."

(*b*) Solchen altehrwürdigen Feierlichkeiten folgte in guter Jahreszeit manches für uns Kinder luſtreichere Feſt außerhalb der Stadt unter freiem Himmel. An dem rechten Ufer des Mains unterwärts, etwa eine halbe Stunde vom Ufer, quillt ein Schwefelbrunnen, ſauber eingefaßt und mit uralten Linden umgeben. Nicht weit davon ſteht der Hof zu den guten Leuten, ehemals ein um dieſer Quelle willen erbautes Hoſpital. Auf den Gemeinweiden umher verſammelte man zu einem gewiſſen Tage des Jahres die Rindviehherden aus der Nachbarſchaft, und die Hirten ſamt ihren Mädchen feierten ein ländliches Feſt mit Tanz und Geſang.

6. Hat Goethe ſeine juriſtiſchen Studien in Leipzig mit Fleiß getrieben? Wie gefiel ihm Frankfurt nach ſeiner Rückkehr von Leipzig? Worin beſtand hauptſächlich der Vorteil ſeines Straßburger Aufenthalts?

7. Translate :—

A horse and an ass heavily laden with luggage, were once driven to market. Said the overburdensed ass to the sturdy horse. "I am so spent with fatigue that I can not walk many steps farther. For pity's sake, relieve me of part of my burden; thou art so young and strong!"

"I have as much as I can bear, without burdening myself with other people's; loads." The horse had no soomer said that

when the poor ass, utterly exhausted, stumbled and fell down dead.

8. (*a*) Was für Fragen behandelt Spielhagen in seinen Romanen?

(*b*) Wie heißen Freytag's Hauptromane?

9. Wie heißt der Verfasser von „Ekkehard"? Was hat derselbe sonst geschrieben? Welche Thatsache liefert den stärksten Beweis seiner Beliebtheit?

10. Was ist der Inhalt der schwäbischen Poesie? Wie hieß der Führer und Meister dieser Schule?

11. Machen Sie kurze Bemerkungen über die Gebrüder Grimm, die Gebrüder Schlegel.

B.A. HONOURS.

TUESDAY, APRIL 4TH: MORNING, 9 to 12.30 A.M.

Examiner..... .... L. R. GREGOR, B. A.

1. Translate:—

A. Faust. Erhab'ner Geist, du gabst mir, gabst mir alles,
Warum ich bat. Du hast mir nicht umsonst
Dein Angesicht im Feuer zugewendet.
Gabst mir die herrliche Natur zum Köni reich,
Kraft, sie zu fühlen, zu genießen. Nicht
Kalt staunenden Besuch erlaubst du nur,
Vergönnest mir, in ihre tiefe Brust,
Wie in den Busen eines Freunds, zu schauen.
Du führst die Reihe der Lebendigen
Vor mir vorbei und lehrst mich meine Brüder
Im stillen Busch, in Luft und Wasser kennen.
Und wenn der Sturm im Walde brauft und knarrt,
Die Riesenfichte stürzend Nachbaräste

Und Nachbarstämme quetschend niederstreift,
Und ihrem Fall dumpf hohl der Hügel donnert,
Dann führst du mich zur sichern Höhle, zeigst
Mich dann mir selbst, und meiner eignen Brust
Geheime tiefe Wunder öffnen sich.
Und steigt vor meinem Blick der reine Mond
Besänftigend herüber, schweben mir
Von Felsenwänden, aus dem feuchten Busch
Der Vorwelt silberne Gestalten auf
Und lindern der Betrachtung strenge Lust.

B. Faust. O glücklich, wer noch hoffen kann,
Aus diesem Meer des Irrtums aufzutauchen!
Was man nicht weiß, das eben brauchte man,
Und was man weiß, kann man nicht brauchen.
Doch laß uns dieser Stunde schönes Gut
Durch solchen Trübsinn nicht verkümmern!
Betrachte, wie in Abendsonne-Glut
Die grünumgebnen Hütten schimmern.
Sie rückt und weicht, der Tag ist überlebt,
Dort eilt sie hin und fördert neues Leben.
O daß kein Flügel mich vom Boden hebt,
Ihr nach und immer nach zu streben!
Ich säh' im ewigen Abendstrahl
Die stille Welt zumeinen Füßen,
Entzündet alle Hö'hn, beruhigt jedes Thal,
Den Silberbach in goldne Ströme fließen.
Nicht hemmte dann den göttergleichen Lauf
Der wilde Berg mit allen seinen Schluchten;
Schon thut das Meer sich mit erwärmten Buchten
Vor den erstaunten Augen auf.

2. Die Sonne tönt nach alter Weise
In Bruderspharen Wettgesang.

What philosophical doctrine held by one of the schools of the ancients do these lines remind you of?

3. Der Herr:—
Kennst du den Faust?
Mephistopheles.
Den Doctor?
Der Herr:—
Meinen Knecht!

Quote as fully as possible those verses in Scripture of which the above-quoted are an evident imitation? State in what book they are to be found.

4. Der Herr:—

Und steh' beschämt, wenn du bekennen mußt:
Ein guter Mensch, in seinem dunkeln Drange
Ist sich des rechten Weges wol bewußt.

Interpret these lines in connection with the problem of Faust and its final solution.

5. Faust:—

Erst zu begegnen dem Thiere,
Brauch ich den Spruch der Viere:
Salamander soll glühen,
Undene sich winden,
Silphe verschwinden,
Kobold sich mühen.

Make brief comments on the preceding passage.

6. Who speaks the following words and what do they refer to?

Erwarte nicht
Das dreimal glühende Licht.

7. Explain what Faust says to Mephistopheles:

Das Pentagramma macht dir Pein?

8. Explain fully the bearing of the following lines on the interpretation and philosophy of the play:

Werd' ich beruhigt je mich auf ein Faulbett legen,
So sei es gleich um mich gethan!
Kannst du mich schmeichelnd je belügen
Daß ich mir selbst gefallen mag,
Kannst du mich mit Genuß betrügen:
Das sei für mich der letzte Tag!
Die Wette biete ich!

9. Es ist ein klein Paris, und bildet seine Leute.

What town is referred to in the foregoing comparison? What light is thrown on this line by Goethe's personal experience?

10. Mephistopheles:—

Hast du vor'm roten Wamms nicht mehr Respect? Explain the historical allusion.

11. Der Herr:—

Des Menschen Thätigkeit kann allzuleicht erschlaffen,
Er liebt sich bald die unbedingte Ruh;
D'rum geb' ich gern ihm den Gesellen zu,
Der reizt und wirkt und muß als Teufel schaffen.

Explain briefly the above passage and cite certain words placed in the mouth of Mephistopheles, which complete the idea of the last two lines.

12. Und ach! entrollst du gar ein würdig Pergamen,
So steigt der ganze Himmel zu dir nieder.

Analyse the character of the man who speaks these words.

13. Distinguish between the Hellenic and Early Christian view of magic.

14. Discuss Faust's Titanic character and thirst for knowledge as portrayed in the first Frankfort Volksbuch.

15. Geben Sie einen Beweis der Ergiebigkeit der dramatischen Literatur in der Behandlung des Fauststoffes.

16. Beschreiben Sie ausführlich den Umweg den die Faustsage bei der Entwickelung der Volksbücher zu Volksschauspielen gemacht hat.

N.B. Question expressed in German are to be answered in German Goethe, Faust (Part I); Lessing, Nathan der Weise.

17. Comment freely on the consequences of the fact that parts of Faust were composed at different times during a period of about sixty years.

18. Was bedeutet die Vermählung der Helena mit Faust?

19. Warum mißlang der Versuch, den Faust in 1788 zu vollenden?

20. Translate :—

A. Klosterbruder—
Der Patriarch
Hiernächst hat ausgegattert, wie die Feste
Sich nennt, und wo auf Libanon sie liegt,
In der die ungeheuren Summen stecken,
Mit welchen Saladins vorsicht'ger Vater
Das Heer besoldet und die Zurüstungen
Des Kriegs bestreitet. Saladin verfügt
Von Zeit zu Zeit auf abgelegenen Wegen
Nach dieser Feste sich, nur kaum begleitet.

B. Daja.
Er kam, und niemand weiß woher.
Er ging, und niemand weiß wohin. — Ohn' alle
Des Hauses Kundschaft, nur von seinem Ohr
Geleitet, drang, mit vorgespreiztem Mantel,
Er kühn durch Flamm' und Rauch der Stimme nach,
Die uns um Hilfe rief. Schon hielten wir
Ihn für verloren, als aus Rauch und Flamme
Mit eins er vor uns stand, im starken Arm
Empor sie tragend. Kalt und ungerührt
Vom Jauchzen unsers Danks, setzt seine Beute
Er nieder, drängt sich unters Volk und ist —
Verschwunden!

21. Erzählen Sie in wenigen Worten die Fabel der drei Ringe.

22. What is the weak point of "Nathan,, considered as a work of art?

B.A. HONOURS.

THURSDAY, APRIL 6TH :—AFTERNOON, 2 TO 5.

Examiner,.....L. R. GREGOR, B.A.

Gostwick and Harrison—History of German Literature; Heine | Lieder; Wieland—Die Abderiten; Behaghel,—Die Deutsche Sprache Nibelungenlied.

N.B. Questions expressed in German are to be answered in German.

1. Translate :—

Ich kenne funfzig Meilen rings um Abdera nur einen einzigen Mann, de Ihnen von Grund aus helfen könnte, wenn Sie sich geduldig und folgsam in eine Cur begeben wollten. Der Mann heißt Demokrit, Damasippens Sohn, Stoßen Sie sich nicht an den Umstand, daß er zu Abdera geboren ist! Er ist darum kein Abderit, dies können Sie mir auf mein Wort glauben; oder wenn Sie mir nicht glauben wollen, so fragen Sie den Delphischen Gott, Er ist ein gutherziger Mann, der sich ein Vergnügen daraus machen wird, Ihnen seine Dienste zu leisten. Und hiermit, meine Herren und Bürger von Abdera, empfehle ich Sie und Ihre Stadt den Göttern. Verachten Sie meinen Rath nicht, weil ich ihn umsonst gebe; es ist der beste, den ich jemals einem Kranken, der sich für gesund hielt, gegeben habe."

2. Translate :—

„Gewähr mir, Bruder, eine Bitt':
Wenn ich jetzt sterben werde,
So nimm meine Leiche nach Frankreich mit
Begrab mich in Frankreich's Erde

„Das Ehrenkreuz am roten Band
Sollst du aufs Herz mir legen;
Die Flinte gib mir in die Hand
Und gürt mir um den Degen."

3. Translate into English :—

Dô gie zeinem Münster vil manec rîcher kneht
unt vil der edeln ritter. die wîsen hêten reht,

daz si den tumben dienten, als in was ê getân.
si hêten kurzwîle unt ouch vil maneger vröuden wân.

Diu hôchgezît dô werte uns an den sibenden tac.
Sigelint diu rîche nach alten sten pflac
durch ir kindes liebe geben rôtez golt:
si kundes wol gedienen, daz si ir sune wâren holt.

4. Citiren Sie eine Zeile aus dem Nibelungenlied, welche die Hauptidee desselben ausdrückt.

5. Scandiren Sie den ersten der obigen Verse.

6. Make etymological comments on michel, lützel, Gunter werlde.

7. What do you know about the authorship of the Nibelungenlied?

8. Explain Verner's law.

9. In welchem Maß haben die verschiedenen Gebiete Deutschlands an der zweiten Lautverschiebung teilgenommen?

10. Welche Länder umfaßte das Westgermanische im sechsten Jahrhundert?

11. Beschreiben Sie den Kampf gegen das Lateinische, welcher im sechzehnten Jahrhundert anfing.

12. Für welche Sprache hat sich Luther entschieden? Beschreiben Sie seinen Einfluß auf die Entwickelung derselben.

13. Give an account of the life and works of Winckelmann.

14. What do you know about the 'Laokoon'?

15. Mention Kant's three chief works.

16. What has Schiller to say about the possibility of making the stage a moral power in society?

17. Account for the enthusiastic reception given to 'Wilhelm Tell.'

18. Criticise 'The Sorrows of young Werther' from the moral point of view, and relate what can be said in Goethe's defence.

HEBREW.

ELEMENTARY COURSE.

THURSDAY, MARCH 30th :—9 TO 12, A. M.

Examiner, REV. PROF. D. COUSSIRAT, B.A., B.D., OFFICIER [d'ACADEMIE.

1. Translate literally :—

וַיֹּאמֶר אֱלֹהִים *יִקָּווּ הַמַּיִם מִתַּחַת הַשָּׁמַיִם אֶל־ °מָקוֹם
אֶחָד וְ*תֵרָאֶה °הַיַּבָּשָׁה : וַ*יִּקְרָא לַיַּבָּשָׁה °אֶרֶץ וּ*לְמִקְוֵה
°הַמַּיִם קָרָא יַמִּים וַ*יַּרְא אֱ" כִּי־טוֹב :

(*a*) Parse the words marked *.

(*b*) Give the construct state of words marked °.

2. Translate literally :—

וַ*יִּיצֶר יהוה אֱ ' אֶת־הָאָדָם עָפָר מִן־ הָאֲדָמָה וַ*יִּפַּח בְּאַפָּיו
*נִשְׁמַת חַיִּים : וַ*יִּטַּע יהוה א" גַּן בְּעֵדֶן *מִקֶּדֶם וַ*יָּשֶׂם שָׁם
אֶת־הָאָדָם אֲשֶׁר יָצָר :

(*a*) Parse the words marked *

(*b*) Point out the different forms which מִן may take.

(*c*) Give the Hebrew words for πν μα, κτίζω, ποιέω, πλάσσω.

3. Translate literally :— *יַעֲזָב־ אִישׁ אֶת־ *אָבִיו וְאֶת־*אִמּוֹ
וְדָבַק *בְּאִשְׁתּוֹ *וְהָיוּ לְבָשָׂר אֶחָד :

(*a*) Parse the words marked *. (*b*) Give the plural of the nouns marked *. (*c*) Explain the use of וְ before דבק. (*d*) Name the accents of that passage and state their value.

4. Write a short paradigm of מָשַׁל in Niphal, Piel and Hiphil.

(5) Inflect the Imperfect Niphal of פָּחַד.

6. Decline יָשִׁיר.

7. What are the characteristics by which the various Imperfects may be distinguished?

8. Translate :—

בְּיוֹם אֲכָלְךָ מִן־הָעֵץ תָּמוּת׃
לְמִי זֹאת׃ יָצַרְתִּי אֹתוֹ׃

9. Translate into Hebrew : (1) This is the day which God sanctified (2) There was no man upon earth in those days. (3) The good tree and the evil tree. (4) Thou mayest eat from all the fruit which God has given. (5) God will not forsake me.

10. Oral examination.

INTERMEDIATE COURSE.

THURSDAY, MARCH, 30TH :—9 TO 12, A. M.

1. Translate literally :—

וַ*יַּכִּירָהּ וַיֹּאמֶר כְּתֹנֶת בְּנִי חַיָּה רָעָה אֲכָלָתְהוּ טָרֹף *טֹרַף
יוֹסֵף׃ וַיִּקְרַע יַעֲקֹב שִׂמְלֹתָיו וַיָּשֶׂם שַׂק בְּמָתְנָיו *וַיִּתְאַבֵּל
עַל־בְּנוֹ יָמִים רַבִּים׃ *וַיָּקֻמוּ כָל־בָּנָיו וְכָל־בְּנֹתָיו לְנַחֲמוֹ
וַיְמָאֵן לְהִתְנַחֵם וַיֹּאמֶר כִּי־אֵרֵד אֶל־בְּנִי אָבֵל שְׁאֹלָה *וַיִּבְךְּ
אֹתוֹ אָבִיו׃ וְהַמְּדָנִים מָכְרוּ אֹתוֹ אֶל־מִצְרַיִם לְפוֹטִיפַר
סְרִיס פַּרְעֹה שַׂר הַטַּבָּחִים׃

(*a*) Parse fully the words marked *.

(*b*) Inflect the imperfect Niphal of קום

(*c*) Give the forms of the irregular nouns found in that passage (singular and plural, with a light and grave suffixes.) Render them nto Greek and Latin.

2. Translate literally :—

אָז *נִבְהֲלוּ אַלּוּפֵי אֱדוֹם אֵילֵי מוֹאָב *יֹאחֲזֵמוֹ רָעַד *נָמֹגוּ
כֹּל יֹשְׁבֵי כְנָעַן׃ תִּפֹּל עֲלֵיהֶם אֵימָתָה וָפַחַד בִּגְדֹל

עַד־יַעֲבֹר עַמְּךָ יְהוָה עַד־יַעֲבֹר
עַם־זוּ קָנִיתָ׃ תְּבִאֵמוֹ וְתִטָּעֵמוֹ בְּהַר נַחֲלָתְךָ מָכוֹן
לְשִׁבְתְּךָ פָּעַלְתָּ יְהוָה מִקְדָּשׁ אֲדֹנָי כּוֹנְנוּ יָדֶיךָ׃

(*a*) Parse the words marked *.

(*b*) Inflect אֵבֶן in the singular.

(*c*) Give a short account of the Song of Moses.

3. Translate literally :—

מִי־יִתֵּן וְהָיָה לְבָבָם זֶה לָהֶם לְיִרְאָה אֹתִי וְלִשְׁמֹר אֶת־כָּל־
מִצְוֹתַי כָּל־הַיָּמִים לְמַעַן יִיטַב לָהֶם וְלִבְנֵיהֶם לְעֹלָם׃ לֵךְ
אֱמֹר לָהֶם שׁוּבוּ לָכֶם לְאָהֳלֵיכֶם׃ וְאַתָּה פֹּה עֲמֹד עִמָּדִי
אַדַּבְּרָה אֵלֶיךָ אֶת־כָּל־הַמִּצְוָה וְהַחֻקִּים וְהַמִּשְׁפָּטִים אֲשֶׁר
תְּלַמְּדֵם וְעָשׂוּ בָאָרֶץ אֲשֶׁר אֲנִכִי נֹתֵן לָהֶם לְרִשְׁתָּהּ׃
וּשְׁמַרְתֶּם לַעֲשׂוֹת כַּאֲשֶׁר צִוָּה יְהוָה אֱלֹהֵיכֶם אֶתְכֶם לֹא
תָסֻרוּ יָמִין וּשְׂמֹאל׃

(*a*) Write an explanatory Note on מִשְׁפָּט, מִצְוָה and חֹק.

(*b*) Parse the words marked *.

(*c*) Inflect the imperfect Kal of יָלַד

(*d*) Decline דָּבָר in the plural.

4. How is the accent of a verb affected by the waw consecutive of perfect and imperfect ?

5. Translate into Hebrew :—(1) I do not know the name of the man (2) God will bless him who shall do well. (3) Hear ye my voice and give ear to that which I shall say. (4) He gave him to God. (5) The man was forty years old, and he had three sons and three daughters

6. Point, translate, parse and explain the following notes:

מניין הפתוחות שלשים וארבעה והסתומות מאה ועשרים וארבעה:

7. Oral examination.

ADVANCED COURSE

THURSDAY, MARCH 30th 9 to 12, A. M.

1. Translate literally :—

יִזְבְּחוּ לַשֵּׁדִים לֹא אֱלֹהַּ *יְדָעוּם חֲדָשִׁים מִקָּרֹב בָּאוּ לֹא שְׂעָרוּם אֲבֹתֵיכֶם: צוּר יְלָדְךָ תֶּשִׁי וַתִּשְׁכַּח אֵל *מְחֹלְלֶךָ: וַיַּרְא יְהוָה וַיִּנְאַץ מִכַּעַס בָּנָיו וּבְנֹתָיו:

(*a*) Parse fully the words marked *, explaining the changes of vowels.

(*b*) Write explanatory notes on שֵׁדִים, אֱלֹהִים, צוּר.

(*c*) Point, translate and explain the masoretic notes

בז״ק, זעירא, קדש

2. Translate literally :—

הֲלוֹא אַתָּה מִקֶּדֶם יְהוָה אֱלֹהַי קְדֹשִׁי לֹא *נָמוּת יְהוָה לְמִשְׁפָּט *שַׂמְתּוֹ וְצוּר *לְהוֹכִיחַ יְסַדְתּוֹ: טְהוֹר עֵינַיִם *מֵרְאוֹת רָע וְהַבִּיט אֵלֶיעָמָל לֹא *תוּכַל לָמָּה תַבִּיט בּוֹגְדִים תַּחֲרִישׁ בְּבַלַּע רָשָׁע צַדִּיק מִמֶּנּוּ: וַתַּעֲשֵׂה אָדָם כִּדְגֵי הַיָּם כְּרֶמֶשׂ לֹא־מוֹשֵׁל בּוֹ:

(*a*) Parse the words marked *.

(*b*) Write a short paradigm of נבט in the Hiphil.

(*c*) Give briefly the contents of the מַשָּׂא of Habakkuk.

3. Translate :—

אֵלִי אֵלִי לָמָה עֲזַבְתָּנִי רָחוֹק מִישׁוּעָתִי דִּבְרֵי שַׁאֲגָתִי: אֱלֹהַי אֶקְרָא יוֹמָם וְלֹא תַעֲנֶה וְלַיְלָה וְלֹא דוּמִיָּה לִי:

וְאַתָּה קָדוֹשׁ יוֹשֵׁב תְּהִלּוֹת יִשְׂרָאֵל: בְּךָ בָּטְחוּ אֲבֹתֵינוּ
בָּטְחוּ וַתְּפַלְּטֵמוֹ: אֵלֶיךָ זָעֲקוּ וְנִמְלָטוּ בְּךָ בָּטְחוּ
וְלֹא־בוֹשׁוּ:

(*a*) Parse the words marked *.

(*b*) Write explanatory notes on לַמְנַצֵּחַ עַל־אַיֶּלֶת הַשַּׁחַר.

4. Translate :—

מִי־יִתֵּן אֹפִי וְיִכְתְּבוּן מִלַּי מִי־יִתֵּן בְּסֵפֶר וְיֶחָקוּ: בְּעֵט־בַּרְזֶל
וְעֹפֶרֶת לָעַד בַּצּוּר יֶחָצְבוּן: וַאֲנִי יָדַעְתִּי גֹּאֲלִי חָי וְאַחֲרוֹן
עַל־עָפָר יָקוּם: וְאַחַר עוֹרִי *נִקְפוּ־זֹאת וּמִבְּשָׂרִי אֶחֱזֶה
אֱלוֹהַּ: אֲשֶׁר אֲנִי אֶחֱזֶה־לִּי וְעֵינַי רָאוּ וְלֹא־זָר כָּלוּ כִלְיָתַי
בְּחֵקִי:

(*a*) Parse the words marked *.

(*b*) Give the different renderings of the passag ידעתי גאלי.

5. What are the interrogative particles ?

6. Translate into Hebrew :—The Lord is our Shepherd ; we shall not want ; he restoreth our soul ; he leadeth us in righteousness ; though we walk through the valley of the shadow of death, we will fear no evil ; his word will comfort us.

7. Point out the grammatical structure of the semitic Languages

8. What are the principal peculiarities of the rabbinical dialect ?

HONOUR COURSE IN SEMITIC LANGUAGES.

THIRD YEAR.

ARAMAIC.

Examiner.... Rev. Prof. Coussirat, B.A.B.D. officier d'Académie.

1. Translate :—

נְבוּכַדְנֶצַּר מַלְכָּא עֲבַד צֶלֶם דִּי־דְהַב רוּמֵהּ *אַמִּין
*שִׁתִּין *פְּתָיֵהּ אַמִּין שֵׁת *אֲקִימֵהּ בְּבִקְעַת דּוּרָא בְּמְדִינַת

סַבְּכָא: וּנְבוּכַדְנֶצַּר מַלְכָּא שְׁלַח *לְמִכְנַס לַאֲחַשְׁדַּרְפְּנַיָּא
סְגָנַיָּא וּפַחֲוָתָא אֲדַרְגָּזְרַיָּא גְּדָבְרַיָּא דָּתָבְרַיָּא תִּפְתָּיֵא וְכֹל
שִׁלְטֹנֵי מְדִינָתָא *לְמֵתָא *לַחֲנֻכַּת צַלְמָא דִּי הֲקֵים מַלְכָּא:

(Daniel 3, 1–3)

(*a*) Parse and derive the words marked *.

(*b*) What is the syntax of numerals in Aramaic.—Compare it with the Hebrew one.

(*c*) Give a short paradigm of קום in Aphel.

(*d*) State the rank and duties of the officers mentioned in that passage.

(*e*) Give the Greek (LXX), the Latin (Vulgate) and the Hebrew of the nouns and verbs in the first sentence.

I. Translate :—

וַאֲנָא הָא *מְקַיֵּם יַת־קְיָמִי עִמְּכוֹן וְעִם־ בְּנֵיכוֹן בַּתְרֵיכוֹן:
וְעִם כָּל־נַפְשָׁא חַיְתָא דְּעִמְּכוֹן בְּעוֹפָא בִּבְעִירָא וּבְכָל־חֵוֹת
אַרְעָא עִמְּכוֹן מִכֹּל *נָפְקֵי תֵּיבוּתָא לְכֹל חַיַּת אַרְעָא:
וַאֲקִים יַת־קְיָמִי עִמְּכוֹן וְלָא־ *יִשְׁתֵּיצֵי כָּל־בִּשְׂרָא עוֹד
*מַמֵּי טוּפָנָא וְלָא־יְהֵי עוֹד טוּפָנָא *לְחַבָּלָא אַרְעָא:

(Onkelos, Genesis 9, 9 ss.).

(*a*) Parse words marked *.

(*b*) Inflect בְּשַׂר (singular and plural).

3. Translate :—

וַיַּרְחֵק יְיָ יַת בְּנֵי אֱנָשָׁא *וְתַסְגִּי צַדִּיוּתָא בְּגַוֵּה דְּאַרְעָא:
*וְיִשְׁתְּאַרוּן בָּהּ חַד מִן עַסְרָא צַדַּיְקַיָּא וְיִתּוּבוּן וְיֵהוֹן לְצַרְבָא
כְּבוּטְמָא וְכִבְלוֹטָא דְּבִמְתַר טַרְפוּהִי דָּמִין לְיָבְשִׁין וְעַד
בֵּעַן אִנּוּן רַטִּיבִין *לְקַיָּמָא מִנְהוֹן זַרְעָא כֵּן גָּלוּתָא דְּיִשְׂרָאֵל
יִתְבְּנְשׁוּן וְיִתּוּבוּ לְאַרְעֲהוֹן אֲרֵי זַרְעָא דְּקוּדְשָׁא נִצְבַּתְהוֹן:

(Jonathan Ben Uzziel, Isaiah, 6, 12-13).

יִגמל יְיָ לִיךְ גְּמוּל טָב בְּעַלְמָא הָדֵין עַל עוֹבָדָךְ טָב
וִיהֵי אַגְרִיךְ שְׁלֵימָא לְעַלְמָא דְאָתֵי מִן קֳדָם יְיָ *דַּאֲתָת
*לְאִתְגַּיָּרָא וּלְאִתְהַבָּאָה תְּחוֹת טְלַל שְׁכִינַת יְקָרֵיהּ
וּבְהַהוּא זְבוּתָא תִּשְׁזִיבִי מִן דִּין גֵּהִנָּם לְמֶהֱוֵי חוֹלָקָךְ עִם
שָׂרָה וְרִבְקָה וְרָחֵל וְלֵאָה׃

(Targum: Ruth 2, 12).

(*a*) Parse and derive the words marked *. (*b*) Inflect זְכוּ (singular and plural) (*c*) Write a note on the שְׁכִינָא.

4. Compare the Aramaic language in Daniel, Onkelos, and Jonathan Ben Uzziel.

5. Characterize the Targums still extant.

6. Oral examination.

THIRD YEAR—HONOURS.

TRANSLATION AT SIGHT.

1. Point and translate:—

ויפל יוסף על־פני אביו ויבך עליו וישק־לו׃ ויצו יוסף
את־עבדיו את־הרפאים לחנט את־אביו ויחנטו הרפאים
את־ישראל׃ וימלאו־לו ארבעים יום כי כן ימלאו ימי
החנטים ויבכו אתו מצרים שבעים יום׃ ויעברו ימי
בכיתו וידבר יוסף אל־בית פרעה לאמר אם־נא מצאתי
חן בעיניכם דברו־נא באזני פרעה לאמר׃ אבי השביעני
לאמר הנה אנכי מת בקברי אשר כריתי לי בארץ כנען
שמה תקברני ועתה אעלה־נא ואקברה את־אבי ואשובה׃
ויאמר פרעה עלה וקבר את־אביך כאשר השביעך׃

Gen. 50, 1-6.

2. Translate:—

שִׁמְעוּ־נָא אֵת אֲשֶׁר־יְהוָה אֹמֵר קוּם רִיב אֶת־הֶהָרִים
וְתִשְׁמַעְנָה הַגְּבָעוֹת קוֹלֶךָ׃ שִׁמְעוּ הָרִים אֶת־רִיב יְהוָה
וְהָאֵתָנִים מוֹסְדֵי אָרֶץ כִּי רִיב לַיהוָה עִם־עַמּוֹ וְעִם־יִשְׂרָאֵל

יִתְוַכָּח׃ עַמִּי מֶה־עָשִׂיתִי לָךְ וּמָה הֲלְאִתִיךָ עֲנֵה בִי׃
כִּי הֶעֱלִתִיךָ מֵאֶרֶץ מִצְרַיִם וּמִבֵּית עֲבָדִים פְּדִיתִיךָ וָאֲשַׁלַּח
לְפָנֶיךָ אֶת־מֹשֶׁה אַהֲרֹן וּמִרְיָם׃ עַמִּי זְכָר־נָא מַה־יָּעַץ
בָּלָק מֶלֶךְ מוֹאָב וּמָה־עָנָה אֹתוֹ בִלְעָם בֶּן־בְּעוֹר מִן־הַשִּׁטִּים
עַד־הַגִּלְגָּל לְמַעַן דַּעַת צִדְקוֹת יְהוָה׃ בַּמֶּה אֲקַדֵּם יְהוָה
אִכַּף לֵאלֹהֵי מָרוֹם הַאֲקַדְּמֶנּוּ בְעוֹלוֹת בַּעֲגָלִים בְּנֵי שָׁנָה׃
הֲיִרְצֶה יְהוָה בְּאַלְפֵי אֵילִים בְּרִבְבוֹת נַחֲלֵי־שָׁמֶן הַאֶתֵּן
בְּכוֹרִי פִּשְׁעִי פְּרִי בִטְנִי חַטַּאת נַפְשִׁי׃ הִגִּיד לְךָ אָדָם
מַה־טּוֹב וּמָה־יְהוָה דּוֹרֵשׁ מִמְּךָ כִּי אִם־עֲשׂוֹת מִשְׁפָּט
וְאַהֲבַת חֶסֶד וְהַצְנֵעַ לֶכֶת עִם־אֱלֹהֶיךָ׃ Micha 6, 1-8.

3. Translate into Hebrew —

Give thanks unto God; proclaim his name; make known his deeds among the nations; sing and chant hymns unto him; declare ye all his wondrous works. Glory in his holy name; let the hearts of them rejoice who seek God. Inquire after God and his power; seek his presence evermore. Remember his miracles that he has done, his wonders and the judgments he ordained, o seed of Israel, his servant; ye children of Jacob, his chosen ones. He is God our Lord; his judgments are in all the earth. Remember ye his covenant forever.

THIRD YEAR HONOURS

LENORMANT :—*Beginnings of History.*

SATURDAY, APRIL 1ST :—9 TO 12 A.M.

1. Give a *résumé* of the Oriental traditions on the creation of man.

2. Compare the Chaldæan and the Biblical accounts of the Deluge.

3. State the theory of the four ages of humanity, according to the Aryan nations.

4. What is the conception of sin in Zoroastrianism?

5. Explain the expression : "Sin holding itself in ambush."

6. What is the meaning of "The children of God?" Discuss the different systems which have been proposed on that subject.

7. In what sense should the universality of the tradition of the Deluge be understood

8. Remark on Lenormant's theory of the similarity of the Bible narratives in the first chapters of Genesis and the traditions of Oriental peoples.

THIRD YEAR HONOURS.

SAYCE :—*Origin and Growth of Religion.*

Write briefly on the following subjects :—

1. Earlier culture of pre Semitic Chaldæa.
2. Origin of the names of Moses, Joseph, Saul, David and Solomon
3. Comparison between Bel of Babylon and Yaveh of Israel.
4. Doctrine of the resurrection in Babylonia.
5. Resemblance of Assur of Assyria and Yaveh of Israel.
6. The Gods and Goddesses of Babylonia.
7. Doctrine of the origin of evil in Babylonia.
8. The purer side of the worship of Ishtar.
9. The Chaldæan fate.
10. The Chaldæan Rig-Veda.
11. The penitential psalms in the Sacred books of Chaldæa.
12. Views of the future state in the same.

THIRD YEAR HONOURS.

1. Translate :—(1) Ecclesiastes VII, 15-18 inclusive :

(2) id. IX, 13-16 id.

(*a*) Parse :—(1) תְּשׁוּמֵם (2) תַּנַּח (3) מְסִכֵּן (4) בְּזוּיָה

(*b*) Write brief syntactical notes on Ecclesiastes IX, 13-16.

(*c*) Give a few examples of the Aramaisms and the philosophica words found in that book.

(*d*) What is to be thought of the materialism of קהלת?

(*e*) Who was קהלת?

2. Translate (1) Isaiah 42, 1-4 inclusive.
(2) id. 46, l. 2. 3 5.

(*a*) Derive and parse the weak verbs in Isaiah 42, verses 3 and 4.

(*b*) Translate the proper names of 42, 4.

(*c*) Point and translate the masoretic notes of 41, 3.

(*d*) To whom does the expression עבד יהוה refer?

(*e*) Write explanatory notes on בל, נבו and כורש.

3. Compare the style of the two parts of Isaiah

4. Oral examination.

NATURAL SCIENCES.

FIRST YEAR.

CHEMISTRY.

FRIDAY, APRIL 14TH:—MORNING, 9 TO 12.

Examiners, ... { B. J. HARRINGTON, B.A., PH.D.
NEVIL NORTON EVANS, M.A. Sc.

1. In what ways are crystals produced? Explain their classification into systems.

2. Explain by means of equations the chemical changes that take place in the manufacture of Sulpuric Acid.

3. What quantities of Copper and Sulphuric Acid would you employ for the preparation of 59 litres of Sulphur Dioxide. Give briefly the properties of the gas.

4. Name each of the following compounds and state the class of bodies to which it belongs:—
$Ca\,H_2O_2$, H_3BO_3, P_2O_5, $(H_4N)\,MgPO_4$, $Na\,HSO_4$, $Bi(OH)_2\,NO_3$.

5. Give the law of Dulong & Petit and explain its importance in connection with the determination of atomic weights.

6. How is Iodine detected (*a*) when free, and (*b*) when combined?

7. What is the chemical explanation of the slow drying of ordinary mortar?

8. How is ordinary Phosphorus prepared? Compare its properties with those of the red variety.

9. State what you know with regard to Silicon and its compounds.

10. Name the metals of the alkalies. What are their general characters. Describe the preparation of one and give the principal sources of its salts.

BOTANY.

SECOND YEAR.

MONDAY, APRIL 17TH:—9 TO 12 A.M.

Examiner,.....D. P. PENHALLOW, B.Sc.

1. State fully the characteristics of a typical Dicotyledonous Angiosperm.

2. Show what constitutes the unit in plant anatomy, and its essential structural characteristics.

3. Characterize the Pteridophytes, and show:—(1) their position in development and (2) their principal groups.

4. Explain the nature and functions of the prothallus, and show its relative development in ferns and the higher Spermaphytes

5. Explain the precise meaning of the terms homosporous and heterosporous, and show their application in Pteridophytes and Spermaphytes.

6. Give a concise account of the absorption and transfer of water by the roots of plants.

7. Outline the life history of a myxomycete, and show its position in development.

8. Give the essentials of a good botanical specimen.

9. Specimen No. 1.
Give the family, generic and specific names.

Specimen No. 2.
Give a full, written description.

On completion of the preceding questions, the paper will be handed in, and the student will take his or her manual together with Specimen No. 3.

10. Ascertain, by means of the manual, the family, genus and species of Specimen No. 3.
No written description is required.

THIRD YEAR HONOURS IN NATURAL SCIENCE, AND THIRD YEAR IN APPLIED SCIENCE
(Departments of Chemistry and Mining).

MINERALOGY.

WEDNESDAY, APRIL 19TH:—MORNING, 9 TO 12.

Examiner,.....B. J. HARRINGTON, B.A., PH.D.

1. Define the term form as used by the mineralogist, and give the different types of crystal forms.

2. What do you understand by symmetry in crystal forms? How are these forms classified according to grade of symmetry?

3. Name the hemihedral forms of the Isometric system, and explain their relation to the corresponding holohedral forms.

4. Explain Miller's index system for the notation of crystal faces.

5. Give the crystallographic characters of the Orthorhombic system and the symbols of the planes according to Weiss, Naumann and Miller.

6. State what you know with regard to the optical characters of minerals belonging to the Isometric and Hexagonal systems.

7. Explain the principles of mineral classification.

8. Upon what does the economic value of the following species depend: Tetrahedrite, Arsenopyrite, Pyrrhotite, Pyrite, Galena? Describe the first two.

9. Describe Corundum and Cuprite, including the varieties of each.

10. What minerals constitute the Spinel group? Discuss their chemical constitution. Describe Spinel and its varieties.

11. Describe carefully the minerals and models exhibited, and name three of the minerals.

B.A. HONOURS (and B.A. Sc., Chemistry and Mining Courses).

(*First Paper*) MINERALOGY.

THURSDAY, DEC. 15TH:—MORNING, 9TO 12.

Examiners,..... { B.J. HARRINGTON, B A., PH.D.
F. D. ADAMS, PH.D., M.A. SC.

1. Give the names and formulæ of the native sesquioxides and dioxides of the metals. Briefly describe one member of each group.

2. What views have been held with regard to the chemical constitution of Spinel, Franklinite, Pyrrhotite, Titanite, Andalusite?

3. Classify and characterise the different varieties of Mineral Coal State also what you know with regard to their occurrence in Canada.

4. Give the general characters of Garnet, and explain the classification of the different varieties.

5. State what you know with regard to the characters and mode of occurrence of any four of the native metals.

6. Give the composition, crystalline form and blowpipe characters of Wolframite, Pyrargyrite, Vesuvianite, Topax, Natrolite.

7. Name and characterise briefly the principal varieties of each of the following species: — Amphibole, Corundum, Orthoclase, Tourmaline, Talc.

8. How would you distinguish Polianite from Pyrolusite, Turgite from Limonite, Bournonite from Tetrahedrite, Chrysolite from Pyroxene, Stilbite from Heulandite?

9. Name the hemihedral forms of the Isometric System, giving their symbols according to Naumann and Dana.

10. Explain the index system of Miller, pointing out any advantages which it possesses as compared with Naumann's symbols. Give the symbols of Miller corresponding to each of the following:—$\infty O \infty$, $2P\infty$, $3P$, $\frac{7}{4}P$, $3P\frac{3}{2}$, $3P3$.

THIRD YEAR HONOURS IN NATURAL SCIENCE AND THIRD YEAR IN APPLIED SCIENCE.

(Departments of Chemistry and Mining).

DETERMINATIVE MINERALOGY.

FRIDAY, APRIL 21ST:—MORNING, 9 TO 11.

Examiners,..... { B. J. HARRINGTON, B.A., PH.D. / NEVIL NORTON EVANS, M.A.Sc.

1. What are the best methods for the detection of Fluorine and Boron in minerals?

2. State what you know with regard to the action of Hydrochloric Acid upon each of the following minerals:—Apatite, Stibnite, Pyrolusite, Calamine, Analcite, Orthoclase.

3. What takes place on heating each of the following minerals on charcoal :—Azurite, Pyrargyrite, Molybdenite, Cinnabar, Galena ?

4. Give blowpipe tests for the distinction of Millerite from Pyrrhotite, Stibnite from Galena, Stilbite from Thomsonite, Spinel from Garnet, Tourmaline from Epidote, Rutile from Cassilerite.

5. How could you tell whether a mineral was a Silicate or a Phosphate? If a Silicate whether decomposable by acids or not ?

6. Give the blowpipe characters of Topaz, Titanite, Pyrolusite, Niccolite, Simonite.

7. Give several examples of the different results obtained by heating certain minerals (*a*) in closed and (*b*) in open tubes.

8. Explain the use of Magnesium, Tin, Cobalt Nitrate and Salt of Phosphorus as reagents in blowpipe analysis.

AFTERNOON, 2 TO 5.

Determination of minerals in the Laboratory.

B.A. HONOURS IN GEOLOGY AND NATURAL HISTORY.

(FIRST PAPER) PRACTICAL GEOLOGY.

THURSDAY, MARCH 30TH :—MORNING, 9 TO 1.

Examiners, ... { B. J. HARRINGTON, B.A., PH.D. / FRANK D. ADAMS, M. AP. SC., PH.D.

1. Define the terms Anticlinal, Synclinal and Isoclinal. How can Isoclinal Folds be recognized when their summits have been removed by denudation ?

2. Define the following terms :—Fahlband, Outlier, Overthrust, Strikes Dip and Outcrop.

3. Describe the parts of a true fissure vein and explain how it differ, from an impregnation.

4. Explain how it is possible in many cases to determine the age of mineral veins.

5. How can the age of a mountain chain be determined? If there be several distinct periods of uplift how can these be recognized ? Cite as an example any well known mountain range.

6. What is Laccolite? Illustrate your answer by a sketch and give an example.

7. State briefly the considerations which must be taken into account in deciding whether an ore deposit can be profitably worked.

8. A series of coal measures dipping at an angle of 30° to the south are cut across by a deep valley sloping very gently in the same direction Draw a sketch map illustrating the outcrop of the strata.

9. A series of horizontal shales and sandstones are traversed by a reversed fault with a hade of 60° and a throw which is everywhere equal to one-half the total thickness of the strata. Represent this in a section.

If the strata on the upthrow side be denuded to the original level, shew by means of a sketch map the distribution of the surface beds.

10. A line AB is drawn across a portion of the Geological Map (**No. 1**) submitted. Construct a horizontal section along this line.

11. Coal claims have been taken up on the maps marked **No. 2**, on the areas marked A, B and C. What is your opinion as to the probability of finding coal on these areas? Give your reasons.

12. In the geological sections submitted (**No. 3**):—

(*a*) How are the "Coal Measures" related to the "Permo-Carboniferous?"

(*b*) To what class does the fault occurring in Fig. 2 belong?

(*c*) The "Desert Sandstone" is Upper Cretaceous. What is the age of the "Coal Measures?"

(*d*) How is the "Desert Sandstone" related to the other formations?

(SECOND PAPER) CANADIAN GEOLOGY.

SATURDAY, APRIL 1ST:—MORNING, 9 TO 12.

Examiners,..... { B. J. HARRINGTON, B.A., PH.D.
FRANK D. ADAMS, M. AP. SC., PH.D.

1. Into what great physical divisions does Canada naturally fall when considered geologically? Define the limits of these, and state briefly the systems which underlie them.

2. Petrographical character and distribution of the Laurentian System in Canada. Enumerate the principal minerals of economic importance which occur in it and state their mode of occurrence. In what part of the system are they found?

3. Describe the Huronian of the original area.

4. How do the copper and nickel ores occur in the Sudbury district. What is the character of the ores and what is the age of the strata in which they occur?

5. Acadian series—age, distribution and principal fossils.

6. Describe briefly the Cambrian of the Rocky Mountains.

7. Where does coal occur in Canada? State the age of the strata in which it is found in the several districts.

8. Petrographical character and distribution of the Triassic Rocks of the Maritime Provinces.

9. Character and succession of Post Pliocene deposits in the vicinity of Montreal. Enumerate some of the characteristic fossils of the same, and state the character of the climate which these indicate. What evidences of Post-Pliocene submergence are afforded by Mount Royal?

(THIRD PAPER) ADVANCED GEOLOGY.

FRIDAY, APRIL 14TH:—AFTERNOON, 2 TO 5.

Examiners, ... { B. J. HARRINGTON. B.A., PH.D.
FRANK D. ADAMS, M.AP.SC., PH.D.

1. State briefly the location of the various coal fields in England. Show how it has been possible to estimate the amount of available coal now remaining in these coal fields. What additional factors must be taken into consideration when endeavoring to estimate how long this supply will last? Show how a knowledge of the geology of the South of England has recently led to the discovery of a new coal field. Illustrate your answer by geological sections, showing how this new coal field is related to those on the continent.

2. Lake Agassiz.—Its origin, limits and point of discharge. What sediments were deposited in it. How is it now represented? Describe the effect of its existence on the present agricultural capabilities of the Dominion. What evidences of continental changes of level does its study afford.

3. Explain briefly the nature, origin and geographical importance of the "Fall Line" on the Atlantic Coast.

4. Explain what is meant by Homotaxis. Give examples to illustrate your answer.

5. Explain the origin, nature, mode of occurrence and geological relations of the iron ore deposits of the Marquette District.

6. Enumerate the principal theories which have been propounded to account for the origin of mineral veins. Show the bearing on this question of the deposits now forming at Steamboat Springs, Nev. Show how

mineral deposits are frequently related to lines of disturbance, and show how this is illustrated by the geographical distribution of the world's quick silver deposits?

7. State briefly some of the lines of evidence which indicate that there have been great climatic changes in many countries in past geological time. Explain how such changes might be brought about.

8. State what you know of the formation of Travertine and Siliceous Sinter by the vegetation of hot springs.

(FOURTH PAPER) PETROGRAPHY.

WEDNESDAY, APRIL 19TH :—MORNING, 9 TO 1.

Examiners,..... { B. J. HARRINGTON, B.A., PH.D.
FRANK D. ADAMS, M.AP. SC., PH.D.

1. Explain the advantages to be derived from the use of heavy solutions in Petrographical investigations, and state the composition and specific gravity of any one of these solutions.

2. What do you understand by an Extinction Angle? How is it measured and of what value is its determination?

3. How are the crystallographic and elasticity axes related to one another in uniaxial minerals?

4. What do you understand by the following terms as applied to the minerals composing rocks: *Accessory*, *Secondary*, *Primary*.

5. Elæolite Syenite—essential constituents. How can it be distinguished, even when very fine grained, from Diorite or Syenite without the aid of the microscope? Enumerate some of the principal localities at which it is found.

6. Describe very briefly the following:—*Perlite*, *Liparite*, *Phonolite*, *Tephite*, *Andesite*, *Arkose*.

7. Enumerate all the constituents commonly found in a Hornblende Granite in the order in which they crystallize out. State the law which governs this order of succession.

8. Write a somewhat detailed description of the rock *Diabase*, treating of its mineralogical composition, structure and mode of occurrence.

9. What do you understand to be the difference between metamorphism and ordinary weathering?

Explain the nature of the changes commonly observed to take place in a clay slate or approaching a mass of granite which has been intruded through it.

10. Name the twelve hand specimens. What structures are exhibited by Nos. 10, 11 and 12?

11. Examine the five thin sections under the microscope. State in each case what minerals are present as well as the name and structure of the rock.

(FIFTH PAPER) PALÆONTOLOGY.

FRIDAY, APRIL 21ST :—MORNING, 9 TO 1.

Examiners,..... { B. J. HARRINGTON, B.A., PH.D.
FRANK D. ADAMS, M.AP.SC., PH.D.

1. What do you understand by the terms "Vertical Range" and "Persistent Type?" Give examples.

2. Describe any typical genus of each of the following groups of Foraminifera; *Agglutinatia, Calcarea perforata, Calcarea imperforata.*

3. Describe the microscopic structure of *Calcarina*, and compare it with that of *Eozoon*. Illustrate your description by sketches.

4. How are the siliceous sponges subdivided? Give an example of each of the subdivisions.

5. Describe the parts of a typical rugose coral. What is the geological range of the order?

6 *Spiriferidæ*,—Zoological relations and distinguishing characteristics. Name two of the principal genera of the family and give the geological range of each.

7. How are the *Echinoidea* subdivided? State the distinguishing characteristics of the several orders, and mention one example of each, giving also its geological position.

8. State the zoological relations and geological age of the following :— *Polystomella, Dictyophyton, Monograptus, Stromatopora, Tethia, Calceola, Phillipsastræa, Pleurocystites, Pentatremites, Productus.*

9 Refer the specimens exhibited to their geological formations and to their places in the zoological classification.

FACULTY OF APPLIED SCIENCE.

SESSIONAL EXAMINATIONS,
1893.

FACULTY OF APPLIED SCIENCE.

FIRST YEAR.

MATHEMATICS (I).

FRIDAY, DECEMBER 16TH :—AFTERNOON, 2 TO 5.30.

Examiner,..... G: H. CHANDLER, M.A.

1. When a straight line is divided into two equal parts and also in two unequal parts, the rectangle contained by the unequal parts together with the square on the line between the points of section is equal to the square on half the line.

Hence show also that the rectangle contained by the sum and difference of two lines is equal to the difference of the squares on the lines.

2. To divide a given line into two parts, so that the rectangle contained by the parts may be equal to a given area. Solve the problem both for internal and external division. Give also an algebraical solution for the internal division, and explain when the problem is impossible.

3. Given the base of a triangle, and the difference of the squares on the sides, find the locus of the vertex.

4. In a given circle to inscribe a regular quindecagon.

5. To two given straight lines find a mean proportional.

When two circles touch each other externally, the part of a common tangent between the points of contact subtends a right angle at the common point of the circles, and is a mean proportional to the diameters.

6. The rectangle contained by the sides of a triangle is equal to the rectangle contained by the diameter of the circumscribed circle and the perpendicular from the vertex on the base

7. In any trihedral angle the sum of any two of the plane angles is greater than the third.

8. Sections of a pyramid made by planes parallel to the base are proportional to the squares of their distances from the vertex.

9. Find the volume of the frustum of a triangular prism.

Calculate the volume of a mound of earth with plane sloping sides, the bottom being 80 yards by 10, the top 70 by 1, and the height 5 yards.

10. Find the volume of a sphere, and prove that it is two-thirds of the volume of circumscribed cylinder.

11. When will the section of a cone be an ellipse? Where are the foci?

The extremities of the major axis of an ellipse are distant 3.58 and 1.64; respectively, from the vertex of the cone; what is the distance between the foci?

12. Prove that the parameter of the diameter through any point on a parabola is equal to four times the distance of the point from the focus.

13. Find the locus of the centre of a circle which touches a given circle and a given straight line.

FIRST YEAR.

MATHEMATICS (II).

TUESDAY, APRIL 4TH:—MORNING, 9 TO 12.

Examiners, ... { G. H. CHANDLER, M.A.
R. S. LEA, B.A.Sc.

1. Find all the factors of

(1) $a^3 - 27\,b^3 + c^3 + 9\,abc$,

(2) $x^6 - y^6$, (3) $x^6 + y^6$, (4) $1 - (x-y)^3$,

(5) $8\,x^2 + 52\,xy + 60\,y^2$,

and show that

(6) $(y-z)^3 + (x-y)^3 + 3\,(x-y)\,(x-z)\,(y-z) + (x-z)^3$.

2. Show that

$$\left\{\frac{x^{\frac{1}{2}} + x^{-\frac{1}{2}}}{x^2 - x + 1} - \frac{x^{\frac{1}{2}} - x^{-\frac{1}{2}}}{x^2 + x + 1}\right\} \div \left\{\frac{x^{\frac{1}{2}} + 2x^{-\frac{1}{2}}}{x^3 - 1} - \frac{x^{\frac{1}{2}} - 2x^{-\frac{1}{2}}}{x^3 + 1}\right\} = x - \frac{1}{x}$$

3. Form the quadratic whose roots are $5 \pm \sqrt{6}$.

If the roots of $x^2 - px + q = 0$ are two consecutive integers, prove that $p^2 - 4q - 1 = 0$.

4. Rationalize the denominator of $\dfrac{3 + 2\sqrt{5}}{2\sqrt{5} - 1}$ and find the square root of $75 - 12\sqrt{21}$.

5. Solve the equations:

(1) $\sqrt{x+3} + \sqrt{x+8} = 5\sqrt{x}$,

(2) $\sqrt{x-1} + \sqrt{x} = \dfrac{2}{\sqrt{x}}$,

(3) $\begin{cases} x^3 + y^3 = 152, \\ x^2 - xy + y^2 = 19, \end{cases}$

(4) $x^3 + 8x^2 = 2 + 11x + 14$.

6. Write down the largest coefficient of the expansion of $(x + y)^{15}$.

7. Find, by the Binomial Theorem, $\sqrt[7]{124}$ to 4 decimal places.

8. Describe the units of angular measurement and the method of changing fromach system to the other.

9. Show that

(1) $\tan\theta + \cot\theta = \sec\theta \operatorname{cosec}\theta$,

(2) $\cos 3\theta + \sin 3\theta = (\cos\theta + \sin\theta)(1 - \cos\theta \sin\theta)$,

(3) $(\sec\theta - \tan\theta)^2 = \dfrac{1 - \sin\theta}{1 + \sin\theta}$

(4) $2\cos\frac{1}{2}\theta = \pm\sqrt{1 + \sin\theta} \pm \sqrt{1 - \sin\theta}$,

(5) $\dfrac{\tan 2\theta \tan\theta}{\tan 2\theta - \tan\theta} - \sin 2\theta$

(6) $\cot^{-1}\frac{3}{4} + \cot^{-1}\frac{1}{7} = \frac{3}{4}\pi$.

FIRST YEAR.

MATHEMATICS (III).

MONDAY, APRIL 10TH:—MORNING, 9 TO 12.

Examiners,..... { G. H. CHANDLER, M.A.
R. S. LEA, B.A.Sc.

1. In any plane triangle

(1) $\cos A = \dfrac{b^2 + c^2 - a^2}{2bc}$,

(2) $\sin\dfrac{A}{2} = \sqrt{\dfrac{(s-b)(s-c)}{bc}}$,

(3) $\tan A + \tan B + \tan C = \tan A \tan B \tan C$.

(4) radius of circumscribed circle $= \dfrac{abc}{4 \times \text{area}}$.

2. In any right-angled spherical triangle

(1) $$\cos A = \frac{\tan b}{\tan c},$$

(2) $$\cos c = \cos a \cos b,$$

(3) either side and the opposite angle are of the same species.

3. Enunciate Napier's Rules, and show how they may be used to solve quadrantal spherical triangles.

4. In any spherical triangle

(1) $$\cos \frac{A}{2} = \sqrt{\frac{\sin s \sin (s-a)}{\sin b \sin c}}$$

(2) $$\frac{\sin A}{\sin a} = \frac{\sin B}{\sin b} = \frac{\sin C}{\sin c}.$$

5. Solve the plane right-angled triangle in which the hypotenuse is 1246 feet and one of the angles is 25° 30′.

6. In a plane triangle given

$$a = 562,\ b = 320,\ C = 128° 4'$$

show that

$$A = 33° 35',\ B = 18° 21',\ c = 800.$$

7. In the spherical triangles in which

(1) $A = 156° 39',\ B = 98° 10',\ C = 90°,$

(2) $a = 89° 17',\ b = 52° 39',\ C - 119° 16',$

show that

(1) $a = 158° 4',\ b = 111° 0',\ c = 70° 34',$

(2) $A = 70° 38',\ B = 48° 36',\ c = 112° 24',$

8. Find the area of the last triangle, the radius being 10 inches.

FIRST YEAR.

MATHEMATICS (IV).

TUESDAY, APRIL 18TH:—MORNING, 9 TO 12.

Examiner,..... G. H. CHANDLER, M.A.

1. What is meant by change of velocity? Illustrate by a figure.

A point describes a circle with a uniform speed of 3 feet per second. Find in magnitude and direction the change of velocity when the point has described (1) a quarter, (2) half of a revolution.

2. Give the three Laws of Motion. Define inertia, stress, work, energy, horse-power.

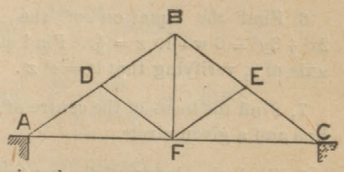
3. A body is thrown directly upwards, and returns to the ground in 10 seconds. Find the velocity of projection.

4. Find the centre of gravity (1) of a triangle, (2) of a solid hemisphere.

5. Two flexible strings, one of which is horizontal, and the other inclined at an angle of 30° to the vertical, support a weight of 10 lbs. Find the tension of each string.

6. Three pounds of a fluid whose specific gravity is 1.25 is mixed with two pounds of a fluid whose specific gravity is ·75. Find the specific gravity of the mixture, assuming that there is no change in volume.

7. A frame is made of rods pinned together at the lettered points. AD = DB = BE = EC, AF = FC = 10 feet, FB = 7½ feet. The load being 100 lbs. at each of the points D and E, draw the stress diagram and determine the stresses.



8. In a plane triangle

$a = 12369{\cdot}12$, $b = 4123.04$, $C = 40° 55' 55''$

show that

$A = 122° 47' 45''$, $B = 16° 16' 20''$, $c = 9640.4$.

9. In a spherical triangle

$a = 99° 40' 48''$, $b = 64° 23' 15''$, $A = 95° 38' 4''$,

show that

$B = 65° 33' 10''$, $C = 97° 26' 29''$, $c = 100° 49' 30''$.

SECOND YEAR.

MATHEMATICS (I).

THURSDAY, DEC. 15TH :—AFTERNOON, 2 TO 5.

Examiners, ... { G. H. CHANDLER, M.A. / R. S. LEA, B.A.Sc.

1. Draw to scale the curves

(1) $y \quad \cos x - \sin x$.

(2) $y^2 = x(x - 1)$.

2. Find the equation of a straight line, given (1) the intercepts on the axes, (2) the perpendicular from the origin, and the angle which the perpendicular makes with the axis of x.

Reduce $3x-4y+2=0$ to each of these forms.

3. The sides of a triangle are $x-5y+13=0$, $5x+7y+1=0$, $3x+y-9=0$; find (1) the area, (2) the length of the perpendicular on the first mentioned side from the opposite angle, (3) the tangent of this angle, (4) the co-ordinates of the centre of gravity of the triangle, (5) the equation of the circumscribed circle.

4. Find the equation of the tangent at any point (x_1, y^1) of the parabola $y^2 = 4px$.

Show also that $y = mx + p/m$ touches the curve.

5. Transform the curve $x^2-5xy+y^2-20x+8y+15=0$ to parallel axes through thepoint $(0,-4)$, then turn the axes through 45^0, thus showing that the curve is a hyberbola.

6. Find the equation of the normal at the point on the ellipse $2x^2+3y^2=6$ where $x=\frac{1}{3}$. Find also the intercept of the normal on the axis of x, verifying that it $= e^2 x_1$.

7. Find the locus of the centre of a circle which touches a given straight line and a given circle.

8. Find the locus of the centre of a circle which touches two given circles.

SECOND YEAR.

MATHEMATICS (II).

MONDAY, APRIL 10TH:—MORNING, 9 TO 12.

Examiner,..... G. H. CHANDLER, M.A.

1. Prove the fundamental formulæ:

(1) $$d(v^n) = n v^{n-1}\, dv,$$

(2) $$d \tan\theta = \sec^2\theta\, d\theta,$$

(3) $$d \tan^{-1}\frac{x}{a} = \frac{a\, dx}{a^2+x^2},$$

(4) $$d(a^v) = (\log a)\, a^v\, dv.$$

2. Show that:

(1) $$d\left(x/\sqrt{2ax-x^2}\right) = ax\, dx/(2ax-x^2)^{\frac{3}{2}},$$

(2) $$d\left[e^{ax}(a\cos mx + m\sin mx)\right] = (a^2+m^2)\, e^{ax}\cos mx\, dx,$$

(3) $$d\left[\log\sqrt{\sin\theta} + \log\sqrt{\cos\theta}\right] = \cot 2\theta\, d\theta.$$

3. Also that:

(1) $\int \frac{dx}{(a-x)^4} = \frac{1}{3(a-x)^3}$,

(2) $\int \sqrt{1 \pm \sin\theta}\, d\theta = 2(\sin\tfrac{1}{2}\theta \mp \cos\tfrac{1}{2}\theta)$,

(3) $\int \frac{dx}{x}\sqrt{\frac{x+a}{x-a}} = \sec^{-1}\frac{x}{a} + \log(x + \sqrt{x^2 - a^2})$.

4. Also that:

(1) $\int_0^2 \frac{x\,dx}{4+x^2} = .346$,

(2) $\int_0^1 \frac{x\,dx}{4-x^2} = .144$,

(3) $\int_0^2 \frac{dx}{4+x^2} = .393$,

(4) $\int_1^2 \frac{dx}{\sqrt{4-x^2}} = 1.047$,

(5) $\int_0^{\frac{1}{2}} \frac{d\theta}{\cos\theta} = .521$,

(6) $\int_1^2 \frac{d\theta}{1+\cos\theta} = 1.012$.)

5. Find the tangents at the origins of the curves:

(1) $2x^2 + y^2 = 3y(x - y^2)$,

(2) $x^2 + y^2 = 2y(x - y^2)$,

(3) $x^2 + y^2 = y(x - y^2)$.

Stating in each case the nature of the origin.

6. For the curve $x^3 + y^3 = a^3$ prove:

(1) that the asymptote is $x + y = 0$,

(2) that $\frac{dy}{dx} = -\frac{x^2}{y^2}$, $\frac{d^2y}{dx^2} = -\frac{2a^3x}{y^5}$,

(3) that the points of inflexion are on the axes,

(4) that the radius of curvature $= -\frac{(x^4+y^4)^{\frac{3}{2}}}{2a^3xy}$.

7. A person is in a boat 10 miles from A, the nearest point on a straight coast line. He can row 4 miles per hour and walk 5 miles per hour. Where should he land so as to reach B, a point on the coast, 20 miles from A, in the shortest possible time? Find also the total time and distance travelled.

SECOND YEAR.

MATHEMATICS (III).

TUESDAY, APRIL 18TH:—MORNING, 9 TO 12.

Examiners,..... .... { G. H. CHANDLER, M.A. / R. S. LEA, B.A.Sc.

1. A balloon is 400 feet from the ground, and ascending at the rate of 10 feet per sec. What time would a sand bag take to fall to the ground from it?

2. What is meant by the moment of a force? Show how it may be represented graphically.

A bridge 30 feet long weighs 14,500 lbs. Find the pressures on the two abutments when a three-ton roller is $\frac{1}{3}$ of the distance across.

3. A table having a circular top of two feet radius is supported on four legs placed at the edge and at equal distances apart. The height is $3\frac{1}{2}$ ft. and the weight 60 lbs. What is the least force that will cause it to overturn if applied at the top (1) as a horizontal force, (2) as a pressure downwards, (3) acting vertically upwards.

4. A locomotive weighing 12 tons moves around a horizontal curve of 1000 feet radius at the rate of 30 miles per hour. What is the horizontal pressure on the rails?

5. The velocity of projection of a projectile is 1000 feet per second, and the range is 500 yards. Find the angle of elevation and the greatest height to which it rises above the horizontal plane.

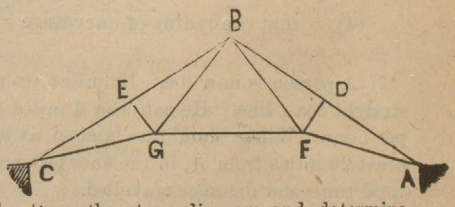
6. Define simple harmonic motion, and show that the acceleration is proportional to the displacement but of opposite sign.

Combine, at right angles to each other, two simple harmonic motions of equal period and phase, but of unequal amplitude.

7. A body floats with one-tenth of its volume above the surface of pure water. What fraction of its volume would project above the surface if it were floating in a liquid of specific gravity 1.25?

8. A cylindrical jar is immersed mouth downward in water. At what depth will it be one-quarter full of water?

9. The frame ABC is loaded with 200 lbs. at each of the points D, B, E; D and E being the middle points of AB and CD, which make angles of 40° with the horizon. EG and DF are perpendicular to BC and BA and are each one-tenth of AC. Draw the stress diagram and determine the stresses.



THIRD AND FOURTH YEARS.

MATHEMATICS (I).

FRIDAY, DECEMBER 17TH:—AFTERNOON, 2 TO 5.30.

Examiner,..... .....G. H. CHANDLER, M.A.

1. Find the tangent to the curve $x^n + y^n = x^{n+1}$ at the point (2, 2), and prove that the sum of the reciprocals of the intercepts of the tangent on the axes is independent of n.

2. If $x^3 + y^3 = 3axy$, prove that

(1) $$\frac{dy}{dx} = -\frac{x^2 - ay}{y^2 - ax},$$

(2) $$\frac{d^2y}{dx^2} = -\frac{2a^3xy}{(y^2 - ax^3)}.$$

3. Show that

(1) $$\text{d log } \left(\sqrt{x-a} + \sqrt{x-b}\right) = \frac{1}{2}\frac{dx}{\sqrt{(x-a)(x-b)}}$$

(2) $$\text{d log tan } \left(\frac{\pi}{4} + \frac{\theta}{2}\right) = \sec\theta\, d\theta$$

4. Prove that the maximum ordinate of the curve $(y - x^2)^2 = x^5$ is $4^4/5^5$.

5. Show that

(1) $$\int \tan^3\theta\, d\theta = \frac{1}{2}\tan^2\theta + \log\cos\theta,$$

(2) $$\int_1^2 \frac{x\,dx}{x^4+4} = \frac{1}{4}\tan^{-1}\frac{3}{4},$$

(3) $$\int \frac{(x^3+1)\,dx}{x(x^3-1)} = \frac{2}{3}\log(x^3-1) - \log x.$$

6. Show by integrating by parts that

$$\int x^2 \sin x\, dx = 2x \sin x + (2 - x^2)\cos x.$$

7. Prove that the area of the cycloid

$$x = a(\theta - \sin\theta),\ y = a(1 - \cos\theta),$$

is three times that of the generating circle, and that its length is four times that of the diameter of the circle.

Expand sec x into the series

$$1 + \frac{x^2}{2!} + \frac{5x^4}{4!} + \ldots$$

8. Turn the axes of the ellipse $17x^2 - 16xy + 17y^2 = 1$ through 45°, and find the area of the curve.

10. Find the equation of a tangent drawn from the point (—4, 8) to the parabola $y^2 = 16x$.

11. Show that the line $y = mx + \sqrt{m^2 a^2 + b^2}$ touches the ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$, and hence explain how a square may be described about an ellipse.

THIRD YEAR.

MATHEMATICS (II).

TUESDAY APRIL 18TH :—MORNING, 9 to 12.

Examiner,..... G. H. CHANDLER, M.A.

1. How is the acceleration curve constructed from the speed curve when the abscissas are distances? Why is the speed curve a parabola when the acceleration is constant?

2. Explain the construction of the hodograph of a point's motion. Why is the velocity in the hodograph equal to the acceleration of the moving point? By means of the hodograph find the acceleration in uniform circular motion.

3. Prove that the time of sliding to the lowest point of a vertical circle along any chord is $2\sqrt{r/g}$

4. A pendulum which beats seconds at the surface gains 5 beats in 24 hours when carried to the bottom of a mine. Find the depth of the mine.

5. Explain a graphical method of finding in magnitude and direction the resultant of any number of forces acting in one plane on a rigid body.

6. Prove that the potential inside a uniform thin spherical shell is constant.

7. A belt passes over a fixed pulley. Find the ratio of the tensions on the two sides.

A chain is wrapped twice round an iron drum. Find the coefficient of friction if a pull of 100 pounds just supports 50 tons.

8. Show that the energy stored up in a train weighing W lbs., and going at the rate of V miles per hour, is $WV^2/30$ foot-pounds nearly.

9. Find the moment of inertia (1) of a circle about its centre, (2) of a hexagon about one side.

10. How long will a fly wheel, making n revolutions per minute, move when left to itself, and how many turns will it make, given the weight (W lbs), the radius of the axle (r in.), the radius of gyration of the wheel (k ft.), and the coefficient of friction (μ).

EXAMINATION FOR THE DEGREE OF MASTER OF ENGINEERING.

ELECTRICAL ENGINEERING.

WEDNESDAY, APRIL 13TH :—MORNING, 9 TO 12.

Examiner,.....C. A. CARUS-WILSON, M.A., M.INST.E.E.

1. State Maxwell's law of Magnetic Traction. Show how the law may be deduced from a consideration of the variables involved, and explain what is the relation between the magnetic traction and the Kinetic Energy of the magnetised mass.

2. A magnetic clutch is to transmit 20 horse power at 350 revolutions per minute. If a wrought iron magnet of the Ironclad type is used with a mean working radius of 8 inches and a mean magnetic path of 20 inches, find the required surface of contact and the number of ampère turns. Allow 20 per cent. loss for leakage.

3. Discuss the relative advantages of fixed and rotating armatures for alternators.

4. An alternator with rotating fields has 8 pole pieces and 8 coils on the armature, spaced and connected in the usual way. Show what alteration would be needed in the armature in order to get three currents with 120 degrees phase difference.

5. Explain what would result if you attempted to run a shunt motor with fields having considerable self-induction by a compound wound generator whose shunt coils were weak compared with the series coils.

6. A drum armature of 40 coils rotates at 750 revolutions per minute. The resistance of each coil is 0.001 ohm, and there are $11 \times 10_6$ c.g.s. lines cutting the armature. Find the current that would be generated in one of the coils if it were accidentally short circuited, while passing through one-tenth of the whole field.

7. Describe, with the aid of diagrams, an experiment arranged to measure the stray field of a Dynamo.

8. What changes have been made in Dynamo design in recent years with a view to reducing the stray field? Give the value you would expect to find in a Dynamo of the Manchester type.

9. Give a description of a Ballistic galvanometer, and show how it may be calibrated.

THIRD YEAR AND B.A. Sc. EXAMINATIONS.

THEORY OF STRUCTURES.

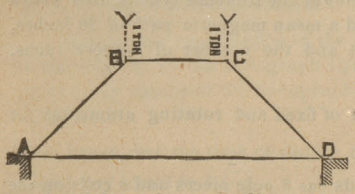
THURSDAY, MARCH 30TH:—MORNING, 9 A.M.

Examiner,..... HENRY T. BOVEY, M.A., M. INST. C.E.

1. A beam *A B*, 12 ft. long, rests upon supports at *A* and *B* in the same horizontal plane. Loads of 1, 2 and 3 tons are concentrated at 3, 6 and 9 ft. respectively from *A*. Determine, graphically, the bending moments at these points.

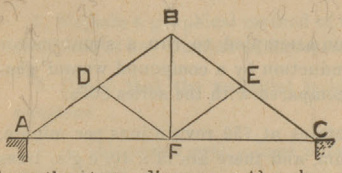
Determine the bending moments at the same points when the two side loads have each moved towards *A* through a distance of (*a*) 1ft., (*b*) 2 ft., (*c*) 3 ft.

2.



Draw the stress diagram for the frame shown by the Figure, loaded with 1 ton at B and at C. If the load at C is trebled show how the frame should be modified, (*a*) by the introduction of a new member, (*b*) by altering the form of the truss, and draw the stress diagram in each case.

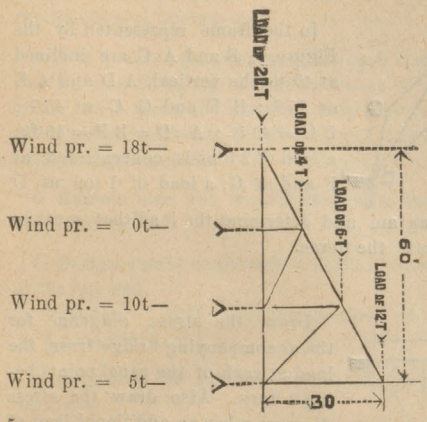
3



In the roof truss shown by the Figure, A F = F C = 20 ft.; B F = 15 ft., the strut F D is parallel to B C and F E to A B; a weight of 1000 lbs. is uniformly distributed over each of the rafters A B, B C, draw the stress diagram. Also draw the stress diagrams when (*a*) an additional load of 400 lbs. is suspended from F, (*b*) the rafter A B is subjected to a normal load of 1000 lbs. uniformly distributed, assuming that the horizontal reaction is distributed equally between the supports.

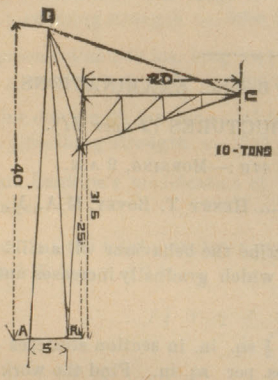
In case (*b*) of the preceding Question, show how the stress diagram will be modified by omitting the strut F D.

4.



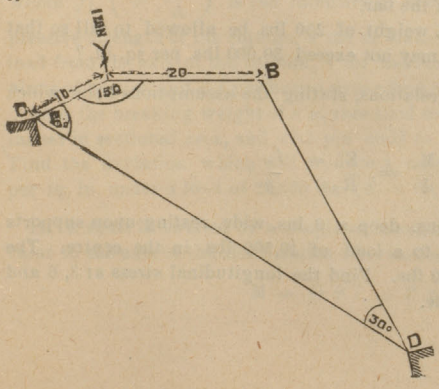
The pier shown by the Figure is subjected to the loads and wind-pressures (in tons) as indicated. Draw the stress diagram and determine the pull on the vertical anchorage bars.

5.



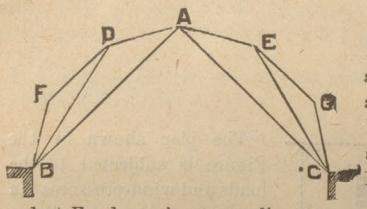
Draw the stress diagram for the crane represented by the accompanying Figure, and determine the nature and amount of the resultant vertical stresses at A and B. The chain, in four falls, passes from C to D and then along D A.

6.



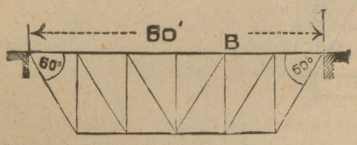
Determine the load at B which will keep the four-sided frame, shown by the Figure, in equilibrium. Also determine the resultant reactions at C and D and the stresses in all the members of the frame.

7.



In the frame represented by the Figure, A B and A C are inclined at 45 to the vertical, A D and A E at 75° ; B F and G C at 15° ; B C = 40 ft.; A D = B F = 10 ft., a load of 2 tons is concentrated at F and at G, a load of 1 ton at D and at E ; draw the stress diagram and determine the load that must be concentrated at A to equilibrate the frame.

8.



Draw the stress diagram for the accompanying bridge truss, the load at each of the panel points being 2 tons. Also draw the stress diagram when an additional load of 2 tons is concentrated at B.

THIRD YEAR AND B.A.Sc. EXAMINATIONS.

THEORY OF STRUCTURES (*Paper II*).

TUESDAY, APRIL 4TH :—MORNING, 9 A.M.

Examiner,..... HENRY T. BOVEY, M.A., M. INST. C.E.

1. State Hooke's Law, and describe the behaviour of a mild steel bar under the action of a tensile force which gradually increases until fracture occurs.

2. A steel bar 10 ft. long and $\frac{1}{2}$ sq. in. in section stretches $\frac{1}{100}$ of it length under a stress of 30,000 lbs. per sq. in. Find the work done and the change in the volume of the bar.

From what height may a weight of 250 lbs. be allowed to fall so that the tensile stress in the bar may not exceed 30,000 lbs. per sq. in. ?

3. Deduce the following relations, stating the assumptions upon which they are based:

$$\frac{M}{I} = \frac{E}{R} = \frac{f_y}{y}$$

A white pine beam, 18 ins. deep × 9 ins. wide, resting upon supports 24 ft. c. to c. is subjected to a load of 10,500 lbs. in the centre. The weight of the beam is 1200 lbs. Find the longitudinal stress at 3, 6 and 9 ins. from the neutral plane.

4. The beam in Question 3, under the given load, deflects 1 inch; find the co-efficient of elasticity.

5. The flanges of a steel beam are each composed of a 24 in. x $\frac{3}{8}$ in. plate rivetted to a 48 in. x $\frac{3}{8}$ in. web by means of two 4 in. x 4 in. x $\frac{1}{2}$ in. angle-irons; write down the moment of resistance of a section, the allowable stress per sq. in. being 12,000 lbs., and the loss of section due to rivet-holes being neglected.

6. Explain how you would design the section of a cast-iron beam to bear a given load.

7. Design a steel cantilever of uniform strength to carry a load of 2 tons at the free end.

(length = 12 ft.; circular section; co efficient of working strength = 6 tons per sq. in.)

8. Determine the coefficient as in Gordon's formula from the following results:—

(*a*) Oak column 60 ins. long, $4\frac{3}{4}$ ins. in diar; breaking weight = 52,500 lbs.; crushing strength = 3600 lbs. per sq. in.

(*b*) Spruce column 60 ins. long x $4\frac{3}{4}$ ins. x 4 ins.; breaking weight = 56,500 lbs.; crushing strength = 3000 lbs. per sq. in.

(*c*) Pine column 60 ins. long x $4\frac{3}{4}$ ins. x $4\frac{3}{4}$ ins.; breaking weight = 48,000 lbs.; crushing strength = 3750 lbs. per sq. in.

9. Explain Rankine's modification of Gordon's Formula, and point out its advantage.

10. Show that the total max. intensity of skin stress in long thin pillar under a load W ($= f$ A) is

$$f\left\{1 \pm \frac{f}{f_1 - f}\frac{nx}{h}\right\},$$

where f_1 $\left(= \frac{P}{A}\right)$ is the intensity of the theoretical maximum compressive strength of the column, x the de viation of the line of action of the load from the axis of the column, h the least transverse dimension in the plane of flexure, and n a coefficient depending upon the form of the section.

Find the breaking weight of a square steel column 120 ins. long, 9 square inches in sectional area, and with pin ends ($a = .0005, f = 67{,}200$ lbs.). Find the deviation which will produce a max. skin stress of 15,000 lbs. per sq. in. under a load of 20,000 lbs ($E = 30{,}000{,}000$ lbs.)

11. A shaft is twisted by a couple of moment Pp. in a plane perpendicular to the axis of the shaft, obtain the relations,

$$M = G\,\theta\,I = P\,p$$

stating the assumptions you make. A steel 2-in. shaft transmits 20 H. P. at 140 revolutions per minute. Determine the max. working stress and the torsion per lineal ft., G being 10,000,000 lbs.

Also determine the efficiency of the shaft, the coefficient of friction being .1.

12. At a point in a strained mass, the stress upon one plane is 6 and its obliquity $\cos^{-1}\frac{5}{6}$, the stress upon a second plane is 12 and its obliquity $\cos^{-1}\frac{13}{15}$; find the principal stresses.

13. A reservoir wall 6 ft. wide and plumb in the front and rear retains water level with the top of the wall. Find the height to which the wall can be built, if the stress in the base is nowhere to exceed 10,000 lbs. per sq. ft.

How much of the wall may be removed without altering its stability?

B. A. Sc. EXAMINATION.

THEORY OF STRUCTURES (*Paper III*).

THURSDAY, APRIL 6TH:—MORNING, 9 A. M.

Examiner,..... .....HENRY T. BOVEY, M.A., M. INST. C.E.

1. Determine the stresses in all the members of *one* of the following bridge trusses:—

(*a*) a Warren truss as per drawing.

(*b*) a pin-connected lattice truss as per drawing.

(*c*) a double-intersection truss as per drawing.

The engine, train and dead loads per lineal ft. of truss are 250, 150 and 100 lbs. respectively.

2. Determine the stresses in all the members of one of the following roof-trusses:

(*d*) a crescent truss of 78 ft. span, as per drawing,

total dead load at each apex = 3 tons
total normal wind pressure on $AB = 3$ tons
" $BC = 2\frac{1}{2}$ "
" $CD = 1\frac{1}{2}$ "
" $DE = \frac{1}{2}$ "

(*e*) a triangular truss of 74 ft. span, as per drawing.
total dead load = 20 tons.
" normal wind pressure = 8 tons.

B. A. Sc. EXAMINATION.

THEORY OF STRUCTURES (*Paper IV*).

SATURDAY, APRIL 8TH, 1893:—MORNING, 9 A.M.

Examiner, ...HENRY T. BOVEY, M.A., M. INST. C.E.

1. A suspension bridge of 500 ft. span and 50 ft. dip has 49 suspenders on each side; the dead and live loads are $1\frac{1}{2}$ tons and 1 ton, respectively.

Find, (*a*) the length of a cable.

(*b*) the greatest pulls at the highest and lowest points of the cable.

(*c*) the pull on a suspender when the live load covers one-half o the bridge.

(*d*) The proper sectional area of a cable, allowing a safe stress of 30,000 lbs. per sq. in.

(*e*) The weight of a cable (steel).

2. Shew that the change of dip due to a variation of $t°$ from the average temperature is

$$\frac{3}{16}\frac{aets}{h}$$

h being the height of each pier above the lowest pt. of the cable, $2a$ the span, e the coefficient of linear suspension ($= .000006$ per degree F,) and s the length of a cable.

The stiffening truss for the bridge in Question 1 is of the lattice type and is 4 ft. deep.

Find the variation in the temperature which will produce in this truss a skin stress of 3 tons per sq. in.

3. State the conditions of equilibrum of a masonry arch, and explain what is meant by the middle third theory.

4. What is the object of the transformed catenary in structural work?

The span of an arch is 20 ft.; the rise is 5 ft.; the height of masonry over crown is 6 ft.; the masonry weighs 150 lbs. per cub. ft.; find the amount and direction of the thrust at the abutments.

5. Determine the conditions of equilibrium for an arched rib hinged at both ends, and show how to find the horizontal thrust at any point.

A semi-circular arched rib of 30 ft. span carries three weights each of 400 lbs. at 5, 10 and 15 ft. from one of the supports.

Determine the thrust and shear at each of the points at which a weight is concentrated.

THIRD YEAR AND B.A.Sc. EXAMINATIONS.

THEORY OF STRUCTURES (*Honours*).

MONDAY, APRIL 10TH :—MORNING, 9 A.M.

Examiner,..... HENRY T. BOVEY, M.A.,M.INST.C.E.

1. A horizontal beam O A carries a load of which the intensity varies continuously, and is p at a point distant x from O ; show that :—

$$+ \mathrm{E\,I}\frac{d^4y}{dx^4} = -p = \frac{dS}{dx} = \frac{d^2M}{dx^2}$$

Hence deduce the B.M., S.F., and deflection at the middle of a beam of 20-ft. span, resting upon two supports, and carrying a load which varies in intensity from nil at one end to 1-ton at the other.

2. Determine the isosceles section of max. strength which can be cut out of a given circular section.

3. A timber beam weighing 36-lbs. per cub. ft., 18-ins. deep by 9 ins. wide by 24ft long, is subjected to a load of 16,000 lbs. in the centre. Find the deflection, E being 1,500,000 lbs.

4. A horizontal beam A C B D of length l rests upon a support at A, carries a load P at B, and is absolutely fixed at D. Show that the max. deflection is at C where $\mathrm{A\,C} = l\left(\frac{l-a}{3\,l-a}\right)^{\frac{1}{2}}$, and find the moment of fixture and the reactions at A and D (B D $= a$).

If the bending moments at B and D are equal, then

$$a\,(\sqrt{2} + 1) = l\,\sqrt{2}$$

5. Show that the work done in bending a beam may be expressed in the form

$$\tfrac{1}{2}\int \frac{M^2\,dx}{E\,I}$$

Find the work done in bending the beam in Question 3.

6. A cantilever of length l, depth $2\,b$ at the fixed end, specific weight w, circular section and with profile in the form of an isosceles triangle, bends under its own weight.

Find the slope and deflection at the free end, and also find the work due to bending.

7. Enunciate and prove the Theorem of Three Moments.

B.A. Sc. EXAMINATION.

THEORY OF STRUCTURES (*Honours*)

FRIDAY, APRIL 14TH:—MORNING, 9 A.M.

Examiner,..... ....HENRY T. BOVEY, M.A., M. INST. C.E.

1. A suspension bridge of 500 ft. span and 50 ft. dip is provided with stiffening trusses of the lattice type, with a double system of right-angle triangles, and hinged at the centre of the span. The loads for which the bridge is designed are $1\frac{1}{2}$ tons dead and 1 ton live. Draw diagrams of max. B.M. and S. F.

Also find the max. diag. and flange stresses at 125 ft. from support.

2. Determine the general differential equations of equilibrium of a loaded arched rib.

3. If X, Y are the horizontal and vertical displacements of any point (x, y) of an arched rib, shew that,

$$X = \int_0^x i \frac{dy}{dx}\, dx - \int_0^x \left(\frac{T}{EA} \pm \varepsilon t \right) dx$$

$$\text{and } Y = -\int_0^x i\, dx - \int_0^x \left(\frac{T}{EA} \mp \varepsilon t \right) \frac{dy}{dx}\, dx,$$

t° being the change in degrees from the normal temperature, ε the coefficient of linear expansion, E the coeff. of elasticity, i the slope of the axis at x, y, A the sectional area of the rib, and T the axial thrust at the same point.

4. A long column has both ends fixed. Shew that the least thrust which will cause lateral flexure is $4\ E\ I \frac{\pi^2}{l^2}$ and state the assumption you make.

5. Shew that the diminution in the length of a long loaded strut may be expressed in the form

$$\frac{4}{a} \left\{ F\mu(\phi) - E\mu(\phi) \right\}$$

$$\text{where} \qquad a^2 = \frac{P}{EI}$$

6. A continuous girder A B C of two spans $A\,B\ (= l_1)$ and $B\,C\ (= l_2)$ is fixed at A and rests upon supports at B and C. Weights W_1 and W_2 are concentrated at the middle points of $A\,B$, $B\,C$, respectively. Find the reactions at $B\ C$ and the $B.\ M$ at A and at B.

By how much must B be lowered so that the whole of the girder may be supported at A and C? Denoting this depression by D, shew that the reactions will be the same as at first, if C be lowered through a distance $= 4\ D$.

B.A.Sc. EXAMINATION.

HYDRAULICS (*Paper I*).

WEDNESDAY, APRIL 12TH:—MORNING, 9 A.M.

Examiner,..... .....HENRY T. BOVEY, M.A., M. INST. C.E.

1. Enunciate and prove Bernouilli's Theorem, and explain under what conditions it is applicable to streams of finite section.

2. Deduce an expression for the discharge through a cylindrical mouth-piece, under a given head of water. Water issues from an opening of 1 sq. in. sectional area in the vertical side of a reservoir under a head of 25 ft. Compare the energy of the jet when the opening is an orifice in a thin plate with the energy when the discharge is through a cylindrical mouth-piece.

3. Deduce an expression for the head absorbed by the frictional resistance to flow in a pipe, the motion being steady.

A reservoir, kept at a constant depth of 30 ft., discharges through a horizontal pipe of 2 ft. diar. and 100 ft. long, into a second reservoir. Find the velocity of flow.

If all sources of supply are closed, in what time will the reservoir be emptied, its horizontal sectional area being 20,000 sq. ft.?

4. The two sluices, each 4 ft. wide by 2 ft. deep, in a lock gate are submerged one-half their depth. The constant head of water above the axis of the sluice is 12 ft. Find the discharge through the sluices, the velocity of approach being 1 ft. per sec.

5. Water is steadily pumped through a six-inch pipe, 30 miles long, to a station 700 ft. higher than the pump, and, under a pump pressure of 1,000 lbs. per sq in., is delivered at the rate of $4\frac{1}{2}$ ft. per sec. Find f (coeff. of fn.), neglecting all losses except that due to pipe friction.

6. Describe the Venturi Water Meter.

7. A 3 in. horizontal pipe 200 ft. long rapidly contracts to a 1 in. orifice whence the water emerges into the air, the discharge being 660 lbs. per minute. Find the pressure in the pipe. If the water is supplied by an open tank, find its height.

8. A pipe 2,000 ft. long, leading from a reservoir 300 ft. above datum branches into two pipes of equal diar, the one leading to a reservoir 150 ft. above datum, the other to a reservoir 50 ft. above datum. Find the height of the free surface level at the junction of the three pipes and the velocities of flow.

9. The section of a channel is a rhombus with diagonal vertical. How

high must the water rise in the channel to give a maximum velocity of flow?

10. The banks of a canal slope at 45°. What must be the width of the bottom and the depth of water, so that 100 cubic ft. of water may be conducted away at a maximum rate of 4 ft. per second?

B.A. Sc. EXAMINATION.

HYDRAULICS (*Paper II*).

WEDNESDAY, 12TH APRIL:—MORNING, 9 A.M.

Examiner,.....HENRY T. BOVEY, M.A., M. INST. C.E.

1. A jet of 4 sq. in. sectional area, moving in the direction A B with a velocity of 15 ft. per sec., drives a flat vane in the direction B C, the angle A B C being 90° and being bisected by the vane. Determine: (*a*) the velocity of the vane which will give a max. efficiency, (*b*) the corresponding normal pressure on the vane, (*c*) the useful work done per second.

2. An overshot water-wheel 40-ft. in diar. receives 300 cub. ft. of water and makes 4 revols. per minute. The depth of crown = 1 ft.; the number of floats = 136. Find, (*a*) the breadth of the wheel, (*b*) the water section of a full bucket, (*c*) the points at which discharging commences and ends (area $b\ c\ d\ f = 126.5$ sq. in.). The water enters with a velocity of 20-ft. per sec. at 12° below the crown, the direction of the inflowing steam making an angle of 30° with the tangent to the wheel. Find the mechanical effect ($k = \frac{1}{2}$) neglecting journal friction.

3. Describe the characteristics of a Poncelet undershot-wheel.

4. Shew how to determine the mechanical effect of a breast-wheel.

5. A water-wheel has an internal diar. of 4-ft. and an external diar. of 8-ft.; the direction of the entering water makes an angle of 15° with the tangent to the circumference. Find the angle subtended at the centre of the wheel by the bucket which is in the form of a circular arc, and also find the radius of the bucket.

6. In an outward flow turbine the internal diar. of the wheel is 12-inches and the external diar. 15 ins.; the effective head is 300 ft.; find the number of revolutions per minute, assuming that the water is to have no velocity of whirl relatively to the wheel at entrance.

B.A. Sc. EXAMINATION.

HYDRAULICS (*Honours*).

Examiner, ... HENRY T. BOVEY, M.A., M.INST.C.E.

1. Water flows steadily along an open channel of varying cross-section and slope; show that

$$\frac{dh}{ds} = \frac{i - \dfrac{\dfrac{f}{h}\dfrac{u^2}{2g}}{\dfrac{x}{A}}}{1 - a\dfrac{u^2}{g}}$$

and state all the assumptions you make. Discuss the equation in the case of a stream of rectangular section and indefinite width, when $h > a\dfrac{u^2}{g}$ and is also $\gtrless H$, the depth for a condition of uniform motion.

2. Assuming that the resistance to the relative sliding of the layers of water in an open stream are of the nature of a viscous resistance, and that the stream is of uniform depth and indefinite width, show that the velocity at any depth y may be expressed in the form,

$$v = -\frac{wi}{2k}y^2 + a\,y + v_o$$

Hence, also, if vm be the mean velocity, vb the bottom velocity, and if the surface resistance is nil, show that

$$vm = \tfrac{1}{3}(2\,v_o + vb).$$

3. Show that if the profile of a stream is in the form of a catenary, the velocity is constant at all depths and the discharge is proportional to the wetted perimeter.

4. A conical reducer 36 ins. long has a diameter of 3 inches at one end and 1 inch at the other, the delivery being under a head of 200 feet. Find the head absorbed by friction.

5. Show how to design a parallel flow turbine. (Q = 40 ft.; head = 16 ft.; $a = 90°$; $r_1 = 6$ ft.; $r_2 = 5$ ft.; $d_1 = d_2$; $\gamma = 15°$).

SECOND AND THIRD YEAR AND B.A.Sc. EXAMINATIONS.

ESSAY.

WEDNESDAY, APRIL 5TH :—9 TO 12, A.M.

Examiners, ... { B. J. HARRINGTON, PH.D. / HENRY T. BOVEY, M.A., D.C.L. / C. H. MCLEOD, MA.E. / C. A. CARUS-WILSON, B.A. / J. T. NICOLSON, B SC. / W. A. CARLYLE, MAE.

FOURTH YEAR.

1. Arched Ribs.
2. Impact of Water.
3. The Economic minerals of the province of Quebec.
4. The determination of hemical formulae.
5. Different forms of Roasting Furnaces.
6. Amalgamation of Gold ores.
7. The investigation of the errors of graduated circles.
8. Engine and boiler testing.

THIRD YEAR.

1. Retaining Walls.
2. The methods of determinative mineralogy.
3. Processes involved in ordinary gravimetric analysis.
4. Underground drainage.
5. The best place to begin the opening of a mining property.
6. The magnetic circuit.
7. Effect of the inertia of the reciprocating parts on crank effort diagrams.
8. The use of the solar attachment to the transit-theodolite.

SECOND YEAR.

1. Chemistry in relation to manufacturing industries.
2. The compound slide rest.
3. Stadia Surveying.

FIRST YEAR.

GEOMETRICAL DRAWING AND PROJECTION.

WEDNESDAY, MARCH 29TH:—MORNING, 9 TO 12.

Examiners,..... { C. H. McLEOD, MA.E. — LEA, B.A.Sc.

1. Construct a regular pentagon of 1 inch side, and find a triangle of the same area.

2. Construct the cycloid generated by a point in the circumference of a circle of 1.5 in. diameter.

3. There is a pentagonal prism of one inch edge. Draw the section caused by a plane inclined at 45°, one of the faces of the prism, and cutting the same at right angles to its length.

4. A cylinder 2 in. in diameter and 3 in. in length has one end in the horizontal plane, and is penetrated by a square prism 4 inch long and 1.4 inch side. Their axes meet at right angles 1.5 inch above the horizontal plane and one diagonal of the end of the prism is vertical. Give plan and elevation when the axis of the prism is parallel to the vertical plane, showing the line of penetration.

(*a*) Show the development of the cylinder and the penetration lines.

5. The base of a pyramid is an equilateral triangle of 2 in. side, and the inclined edges measure 3 in. Give the plan and elevation when the prism rests on an edge of the base, and this edge is at 45° to the vertical plane, the axis of the pyramid being inclined at 60° to the horizontal.

6. Draw an isometric projection of a cube of 3 in. edge, surmounted by a cone. The base of the cone is 3in. in diameter and its altitude is 2 in The axes of the cone and cube are coincident.

SECOND YEAR.

SURVEYING (*First Paper*).

TUESDAY, APRIL 4TH:—9 TO 12, A.M.

Exminers, ... { C. H. McLEOD, MA.E. W. J. SPROULE, MA.E.

1. Give three methods of producing a line and continuing the chainage thereof, past an obstacle. Chain and ranging rods only to be used. State which you consider the best method, under ordinary circumstances, and why so.

2. Describe the construction of the prismatic compass, and show by diagram how the card is graduated marking the *N*, *E*, *S* and *W* points.

3. Given the lengths and bearings of a closed survey. Show how to calculate the area by the double longitude method. (*a*) The double longitude of a line *E F* is + 487 and its departure —376, what is the double longitude of *F G* which has a departure of —333?

4. Show by a sketch a vernier scale reading to 23° 30′ 30″.

5. Give two methods of testing the collimation adjustment of the transit instrument.

6. In the stadia telescope show that $D = c + k\,d$, where c and k are constants, D the distance measured and d the portion of the rod between the hairs.

7. At two adjacent stations on a railway location the elevations of the ground are 81.50 and 97.60 respectively. The corresponding elevations of formation level are 90.00 and 91.00. Show a set of notes setting out the work. Suppose the ground to slope upwards to the left, the width of road bed on filling to be 16 ft. and in cutting 18 ft. Place a gradient peg on the centre line.

VIII. What do you understand by "adjustment for parallax?" How often should this adjustment be made? What would you suspect to be the cause of frequent parallax?

IX. Give a method of finding the true north from a circumpolar star with the transit instrument, without calculation.

SECOND YEAR.

SURVEYING (*2nd Paper*).

TUESDAY, APRIL 4TH :—2 P.M.

Examiner,..... .....C. H. MCLEOD, MA.E.

1. What are the bearings of the two pickets from the Compass and the angle between the lines?

2. Find with the transit instrument the bearings of the arms A to B and B to C. The meridian is A M.

3. What is the error of collimation of the Wye level at the distance of the rod? Are the cross hairs to be moved up or down when the instrument is erect?

4. Find by the pocket level the difference in elevation of the stands on which the rods are placed.

5. The further rod is 56 ft. distant from the vertical axis of the stadia telescope. What is the distance of the nearer rod? Give your observations and the full calculations of the result.

6. Reduce the given irregularly bounded figure to a triangle, and calculate the area in acres, roods and poles. The scale is forty chains (Gunter) to an inch.

SECOND AND THIRD YEARS.

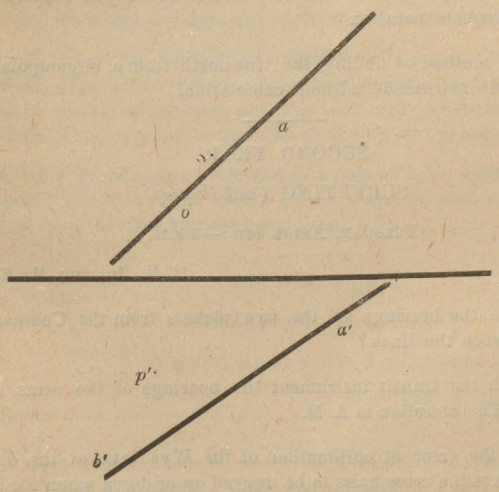
DESCRIPTIVE GEOMETRY.

WEDNESDAY, MARCH 29TH:—MORNING, 9 TO 12.

Examiner,..... C. H. MCLEOD, MA.E.

1. Find the traces of a plane which makes an angle of 45° with the horizontal and 60° with the vertical, and which contains a point P one inch distant from each plane of projection.

(*a*) How many planes are there which fulfill this condition? Represent them



2. From the point P draw a line making an angle of 60° with the line AB.

3. A roof which is inclined to the horizontal at 45° meets another roof which is inclined at 60°. The horizontal edges of the roof meet at an angle of 45°. Find the inclination of the line of section and the angle between the two surfaces.

4. A pyramid whose base is a square of one inch and sides equilateral triangles is so placed that the diagonals of the base make angles of 30° and 45° with the horizontal. Find the plan and an elevation on a plane parallel to one of the diagonals. Do not allow the plan to overlap the elevation in your drawing.

5. A line inclined at 45° revolves about a vertical line. The length of the common perpendicular is 0.5 in. Find the projections of the resulting surface.

6. Two sides of a spherical triangle 45° and 60°, and the contained angle 60°. Find the other parts.

7. There is a square prism having an end of 1.5 in side and a length of 3 in. The projections of the edges make angles 100°, 120° and 140° with each other. Find the protection of the prism. (*a*) Represent a cylindrical hole of 1 in. diameter, cut through the centre of the prism at right angles to two of the faces.

NOTE.—The second year will omit Question 6.
The third year will omit Question 5.

THIRD YEAR.

SURVEYING AND PRACTICAL ASTRONOMY.

SATURDAY, APRIL 1ST:—2 P.M.

Examiner, ...C. H. MCLEOD, MA.E.

1. Determine the angular value of one revolution of the Gradienter attachment to transit instrument. The rod is distant — ft.

2. Find the value of the stadia constant. The rod is distant — ft.

3. Measure the inclination of the point X from the theodolite, adopting means to eliminate the errors of the instrument.

4. Measure the index error of the sextant.

5. Measure the area of the given diagram, using the planimeter.

6. The distance between the given cross section is 100 ft. Find the included volume.

7. Reduce 8h. 3m. 30s.5 sidereal time at Montreal to-day to mean time and also to "standard" time. The longitude of Montreal is 4h. 54m. 18s.54.

SURVEYING AND PRACTICAL ASTRONOMY.

THIRD YEAR.

MONDAY, APRIL 3RD :—9 TO 12 A.M.

Examiners,..... ..... { C. H. McLEOD, MA.E. / W. J. SPROULE, MA.E.

1. What are the relative positions of the fixed point, the copying and tracing points in the pantograph? What is the scale of the copy?

2. Explain and illustrate by sketch a method of topographical surveying by the use of the transit instrument and stadia, based on a triangulation survey. (*a*) Show how the contour lines would be put on the map.

3. Outline the location of a railroad survey to connect fixed points, commencing with the preliminary or trial survey.

4. Show how to make a survey at sea, in shoal water.

5. Compare the operations of mine surveying with ordinary land surveying.

6. Show how to calculate the "pull" on a tape necessary to correct for the "sag" between points of support. Obtain a formula.

7. The observed aagles of a quadrilateral are $A_1 = 40° 10' 05''$, $A_2 = 52° 10' 03''$, $B_1 = 37° 20' 07''$, $B_2 = 55° 20' 10''$, $C_1 = 35° 10' 12''$, $C_2 = 45° 14' 55''$, $D_1 = 44° 14' 52''$, $E_1 = 44° 14' 56''$, $E_2 = 50° 19' 55''$. Apply the angle-equation adjustment and show how to make the side-equation adjustment.

8. Give three methods of determining latitude by observation in the meridian and give the value of the latitude in each case.

9. Explain the method of determining the meridian by equal altitudes, and show what correction is to be applied in the case of the sun. (*a*) State how you would make such observations on the sun.

X. Give a ready method, when in the field, for checking the graduation of a sextant without the aid of any other instrument.

XI. What are the only straight lines you can run on the earth's surface. with a constant bearing? Give the reason.

B.A.Sc. EXAMINATION.

GEODESY AND PRACTICAL ASTRONOMY.

SATURDAY, APRIL 1ST:—9 TO 12 A. M.

Examiner, ...C. H. MCLEOD, MA.E.

1. In observing altitudes with a sextant and artificial horizon, show that the inclination of the index glass to the horizon is a constant for all stars, when the two images are made to coincide.

2. Obtain Mayer's equation for the reduction of transit observations in the meridian.

3. Explain and illustrate by an example the determination of level and collimation by reflection from mercury.

4. In the measurement of base lines with a tape or wire, obtain a formula by which to calculate the "pull" required to correct for "sag." (*a*) Explain carefully the measurement of a base in this manner, the precautions to be taken and the reductions to be made in order to obtain the true length.

5. Obtain the correction in azimuth for (*a*) inclination of the horizontal axis of a theodolite, (*b*) for error of collimation.

6. Explain the construction of maps on the equi-distant polyconic method.

7. A base line is measured, and a triangulation in which all the angles are observed, extended from it. The sides of the triangles range in length from 10 to 20 miles. Explain in proper sequence the reductions of the observations, and give the methods you would employ in computing the differences in latitude and longitude.

B.A.Sc. EXAMINATION.

GEODESY AND PRACTICAL ASTRONOMY (*Second Paper*).

SATURDAY, APRIL 1ST:—2 P.M.

Examiner, ...C. H. MCLEOD, MA.E.

1. The error of the sidereal chronometer was —— at 9h. to-day and its daily rate is ——. What was the error of the mean time chronometer at 2 p.m. to-day, its daily rate being ——.

2. Measure the magnifying power of the level. What is the equivalent focal length of the eye-piece?

3. Find the difference of the mean time clocks by comparison with the sidereal clock as on the chronograph record. The rates being zero.

4. At 3 p.m. mean local time, March 30th at Montreal (Lat. 45d 30) the sun's centre was observed to make an angle of 15° 30′ eastward of a given line. Find the azimuth of the line.

5. Given the latitude of a station A on the spheroid 46° 4′ 0″; the longitude 84h 55′ 48″ (West). The distance to a station B is 48,280 yards and the azimuth of B from A, 339° 10′ 36″. Calculate the latitude and longitude of B.

SECOND YEAR.

DRAWING.

SATURDAY, APRIL 1ST:—MORNING, 9 TO 1.

Examiner,.....J. T. NICOLSON, B.Sc.

1. Draw the section and two end views of the steam engine cylinder shown. Scale 3 inches to the foot.

2. An India rubber disc valve consisting of a circular disc of rubber between a guard plate and a gridiron seating. Complete the drawing of the plan. Scale 3 inches to the foot.

SECOND YEAR.

MECHANISM.

THURSDAY, APRIL 6TH:—MORNING, 9 TO 12.

Examiner,.....J. T. NICOLSON, B.Sc.

(*Not more than twelve questions to be attempted.*)

1. Prove that when two circles roll together, their uniform angular velocities are inversely as the radii of the circles.

If a be the distance between the axes, m and r the revolutions per second and radius of one wheel, n and R those of the other; you are required to express r and R in terms of a, n, m.

2. Sketch in elevation and plan the relative positions of two pulleys connected by a quarter twist belt.

What is the principle governing the running of all such belts?

3. Prove that if the length of the crank in a horizontal direct-acting engine represent the uniform speed of the crank pin centre, then the length

of the line drawn vertically from the shaft centre to cut the axis of the connecting rod will measure the varying speed of the piston on the same scale.

4. Show by a figure the relation between the speeds of crank pin centre and piston in the oscillating engine. Prove your result.

5. Make a careful sketch of a reversing motion for a planing machine.

6. Sketch carefully Whitworth's quick return motion for a shaping machine.

7. State and prove the relation between the angular velocities of the cranks in the Stanhope levers.

8. State the principle of Watt's parallel motion, and apply the pantograph to obtain two points moving vertically as in the beam engine.

9. Sketch Peancellier's bars, and prove that a straight line motion may be thereby obtained.

10. Make a careful sketch of a feed motion for either a drilling or shaping machine.

11. Show that with teeth properly shaped for gearing together, the normal to their common points of contact must always pass through the pitch point.

12. Why are cycloidal and involute curves suitable for teeth of wheels? Show by sketches how you would draw the teeth on a 24 inch spur wheel and a 6 inch pinion gearing together.

13. Sketch Watt's sun and planet wheels, and find how many turns the shaft makes for one stroke of the engine, when the number of teeth in the wheels is the same.

14. Make a careful sectional sketch through the Crosby indicator; and point out the faults on the indicator card shown.

15. Make skeleton drawings of Stephenson's, Gooch's and Allan's reversing motions for locomotives.

16. Define the terms mechanism; sliding, turning and screw pairs; elements; kinematic chain; inversion; link.

17. Sketch the mechanisms obtainable by inversion of the slider-crank-chain.

18. Show how by inversion of the double slider-crank-chain a common form of steam pump may be derived.

THIRD YEAR.

DRAWING.

SATURDAY, APRIL 1ST :—MORNING, 9 TO 1.

Examiner,..... .....J. T. NICOLSON, B.Sc.

1. Draw the four views shown of connecting rod to a scale of half-full size.

2. Indicate the purpose of the various details and the material of which each part is made.

THIRD YEAR.

DYNAMICS OF MACHINERY.

WEDNESDAY, APRIL 12TH :—MORNING, 9 TO 12.

Examiner,..... .....J. T. NICOLSON, B.Sc.

1. Find an expression for the acceleration of the reciprocating parts in a horizontal direct-acting engine with a uniformly rotating shaft.

2. Investigate the work lost in friction in a journal and bearing per minute when the distribution of pressure is such that the vertical wear is constant; and compare this with the amount expended on the assumption that the journal touches the bearing along a line.

3. If μ be the coefficient of friction, P the load on a journal of diameter d inches, rotating n times per minute, and having a length l inches. Suggest a method of determining the length in terms of h the units of heat dissipated per square inch of journal surface.

4. Investigate a formula for the maximum tension in a belt, taking into account the stress due to centrifugal force.

5. Using the formula of last question, determine the width of belt which will give the smallest pull on the bearings in the case of a motor driving a dynamo; both running at 300 revs. per min. Take the maximum tension allowable per inch of width for a belt 0″.25 thick at 80 lbs; the weight of the belt 0.1 lbs. per inch of width and the value of $E^{\mu\theta}$ 3.5.

6. What is the largest size allowable for a cast iron pulley running at 300 revs. per min.; allowing a tensile stress of 900 lbs. per square inch in the rim?

7. Investigate the formula for the weight of a fly-wheel for an engine whose coefficient of fluctuation of energy is 0.2; the energy exerted per

stroke is 5000 foot pounds; the mean fly-wheel rim speed is 20 feet per sec., and the coefficient of fluctuation of speed is not to exceed 0.01.

8. Design a double riveted lap joint for a boiler 7′-0″ dia to work at a pressure of 100 lbs. per sq. in. The plates may be taken as good for 9000 lbs. per sq. in. and the rivets 7000. The joint is to have an efficiency 0.7.

9. Define the coefficients of fluctuation of speed and of sluggishness in a governor.

10. Investigate the efficiency of a screw.

THIRD YEAR.

MACHINE DESIGN.

SATURDAY, APRIL 15TH:—MORNING, 9 TO 12.

Examiners,..... { JOHN T. NICOLSON, B.Sc.
R. S. LEA, B.A.Sc.

1. A sluice gate 12 feet high by 4 feet wide slides vertically in cast iron planed grooves. Design a spindle of wrought iron capable of lifting the gate, whose weight is 1,000 lbs.; supposing the coefficient of friction for starting to be 0.5 and for motion 0.2. Take the wrought iron subject to tension alone and good for 9,000 lbs.

2. The sluice gate of (1) is to be lifted by a hydraulic cylinder in which the pressure is 150 lbs. per square inch. Give sketch of cylinder, piston, piston rod, and covers suitable; and work out the chief dimensions.

3. A cast iron girder of double the section is suggested to support the cylinder of (2). Taking the clear span at 6′—0″, design this girder. Cast iron is good for 1,000 lbs. in tension and 9,000 in compression.

If 0.28 tons per square inch is the safe allowable stress on fir; and this wood weigh 30 lbs. per cubic ft. Which would make the lighter beam? Take the depth twice the breadth.

4. In how many ways can a riveted joint give way? Give the resisting strength for each case.

Examine the tension member sketched, and state how it will give way. Plates to be taken at 12,000, rivets 9,000 lbs. per square inch.

5. Design the cottered end of a piston rod 2″ in diameter of body $f_t = 10{,}000$, $f_s = 8{,}000$, $f_c = 20{,}000$.

6. What size would you make the cross head pin for an engine whose maximum effective load is 7,080 lbs., and mean 5,000 lbs. You may allow a bearing pressure of 700 lbs.

7. A counter shaft is transmitting 40 H. P. into a pulley of diameter 2 feet whose centre overhangs the bearing 6 inches. Design the shaft which is to run at 180 revolutions and is good for 8,000 lbs. in shearing. Take $e^{u\theta} = 3.5$.

8. Design an overhung crank for the engine of question (6). Crank pin and shaft to be wrought, crank arm cast iron. Overhang 9 inches. Stroke 15 inches.

B. A. Sc. EXAMINATION.

DYNAMICS OF MACHINERY AND MACHINE DESIGN.

THURSDAY, APRIL 6TH:—MORNING, 9 TO 12.

Examiner, ... J. T. NICOLSON, B.Sc.

1. Show that in a single cylinder direct acting engine, if M be the mass of the reciprocating parts, v the speed of the crank pin centre, r the length of the crank, n the ratio of connecting rod to crank length; the force whose effect on the engine bed is unbalanced is $\frac{Mv^2}{gr}\left(1 \pm \frac{1}{n}\right)$ very nearly, according as the in or out dead centre is considered.

2. A vertical engine known as the "Wells" has two pistons of equal mass (100 pounds each) on a common axis coupled to opposite cranks. If the stroke be 18 inches, and the three connecting rods each 45 inches long, find how much this engine is out of balance on the top centre. Neglect the dynamics of the connecting rod.

3. A rod for the indicator pencil motion of rectangular section 1 inch $\times \frac{1}{4}$ inch is hinged at one end to a fixed point above, and slotted at the other to embrace a pin in the cross head of a horizontal engine whose stroke is one foot. Find the greatest reaction on the fixed point when the speed of the engine is 400 revolutions per minute.

4. In a machine for testing sliding friction, a weight of 600 pounds resting on a table is attached by a horizontal cord passing over a pulley at the end to a weight of 300 pounds. This weight is at first supported by a cord, which is afterwards cut. Neglecting the friction of the pulley, find the greatest force on the table in magnitude and direction.

If the table be 6 feet high and 4 feet long, what size of wire tie would you put in to meet the case, and where? Take the allowable stress in the wire 15,000 pounds per square inch.

5. The couple required to turn a five inch three way cock is about 600 lbs. ins. Design a round wrought iron handle to fit the squared plug end. Take the wrought iron good for 5000 lbs. in tension, and the brass for 800 lbs. in shearing.

6. Give the data and calculations necessary for designing a pump driven by belting to deliver a given quantity of water.

7. Make a sketch of a Riedler valve for a pump; describe its action, and state its advantages.

8. An engine with 10" cyl. 12" stroke has steam ports one inch, and exhaust post three inches wide. Make a figured sketch of the slide valve section. Cut off to be at half stroke on the average; lead one-eighth, connecting rod 5 cranks long.

9. Locomotive; span of slide bars (of wrought steel, good for 13,000 lbs. in tension) 3' - 0"; connecting rod 6 cranks; piston 20" dia.; maximum effective pressure (taking place at half span) 140 lbs. per square inch; width of bars $4\frac{5}{8}$". You are required to find the thickness.

B.A. Sc EXAMINATION.

THERMODYNAMICS.

TUESDAY, APRIL 18TH:—MORNING, 9 TO 12.30.

Examiner, ...JOHN T. NICOLSON.

(Questions marked with an asterisk are for candidates in honours.)

1. Give an expression for the total heat of evaporation of one pound of dry steam at temperature t° F. Modify this expression so as to be suitable for wet steam.

How many lbs. of dry steam from and at 212° F. could a boiler evaporate for every pound of steam it generates with 5 per cent. of suspended moisture from 150° F. at 347° F.? L = 868.8.

2. Enunciate the four laws of the permanent gases. Show that, however a gas may change its state, the internal work done is proportional to the change of temperature.

3. Define absolute temperature; and deduce the position of the zero on the Fahrenheit scale.

*4. State briefly the nature of the kinetic theory of gases. Show that the pressure of a gas on a plane is numerically two-thirds the kinetic energy of unit of volume of the gas. Define "velocity of mean square."

*5. Deduce Boyle's and Charles' Laws from the kinetic theory of gases.

6. Deduce the value of c for air in the expression $PV = cT$. The weight of a cubic foot of air at atmospheric pressure and temperature 32° F. is 0.0807 lb.

7. Show that $k_p - k_v = c$, when all are in the same units; and that $k_v = \frac{c}{\gamma - 1}$

8. Show that the work done during isothermal expansion of a lb. of air is $cT \log_e r$; and that the mean forwarl pressure is

$$P_m = \frac{P_1 \log_e r}{r}$$

where P_1 is the pressure at the beginning of, and r is the ratio of expansion

9. Show that when a lb. of air expands according to the law $PV^n =$ const., the work done is

$$\frac{c}{n-1}\left(T_1 - T_2\right)$$

and that the mean forward pressure is

$$P_m = \frac{1}{n-1}\left(\frac{P_1}{r} - P_2\right)$$

10. Define adiabatic expansion, and show that when a gas expands in this way the equation to the curve is $PV^\gamma =$ constant.

11. Describe a perfect air engine, and deduce its efficiency.

12. Describe the action of a regenerator, and point out its effect on efficiency.

*13. A pound of air at 60° F. expands at constant pressure by the addition of heat till its temperature is 400° F. It then expands adiabatically till its temperature again falls to 60° F. Lastly it is compressed isothermally, heat being rejected, to its initial state. Find the work done and the efficiency.

14. Determine the sizes of cylinders for a compound engine to indicate 100 H.P. at 120 revolutions. The initial and condenser pressures to be 90 and 4; the stroke 2 feet; ratio of expansion 9; ratio of cylinder areas 3.5

B.A. Sc. EXAMINATION.

MACHINE DESIGN.

SATURDAY, APRIL 1ST :—MORNING, 9 TO 12.

Examiner, ...J. T. NICOLSON, B.Sc.

1. Examine whether the riveted joint of tie as shown will give way by tearing the plate or shearing the rivets. Take the breaking strength of plates 30, of rivets 24 tons.

2. The steam drum of a boiler in which the working pressure will be 150 lbs. is 3′—6″ dia. It is to have a longitudinal double riveted lap joint of 70 per cent. efficiency. Taking $f_t = 12{,}000$, $f_s = 9{,}000$; determine the plate thickness and design the joint.

3. A foundation bolt of diameter d is secured by means of a cotter through its square end. Determine the breadth b, and thickness t, of the cotter, and the size of the squared end s; so that the shearing stress may be three-fourths and the bearing pressure on the cotter twice the tensional stress on the bolt.

4. You are required to design an overhung cast iron crank, with wrought iron crank pin, and shaft journal, for an engine with a 10″ cylinder and 15″ stroke. The effective initial pressure is 90 lbs. per square inch of piston area and the connecting rod is six cranks long.

With a mean thrust of 4,200 lbs. in the connecting rod you may allow 560 lbs. as the bearing pressure on the crank pin.

The bending moment arm from centres of crank pin to shaft journal is 9″; and the stresses to be allowed are 9,000 for shearing, 10,000 for tension in wrought iron, and 1,000 for tension in cast iron.

5. A wrought iron girder of double tie section is to be used for a foundry travelling crane, and is to carry one ton at any point of the span of 20 feet. The ratios of effective depth to breadth and of effective depth to flange thickness are to be 3 and 30 respectively; and the allowable stress on the flanges is to be 4 tons. Design the girder.

6. A wrought iron ring of mean diameter 7″ and of section 1″ square is shrunk on the hub of a flywheel. Assuming that it bears tightly at 100° C; what stress will it be under when cooled to 0° C? Take the coefficient of expansion 0.0000108 and E = 29 million.

7. What horse-power can be safely transmitted by a $2\frac{3}{8}$″ shaft at 150 revolutions; 9,000 lbs. being taken as the allowable shearing stress.

8. Determine the pitch of a spur wheel 2 feet in diameter to transmit the power of the last question.

9. Find the horse-power which may be transmitted by a leather belt 5″ wide, $\frac{1}{4}$″ thick, running at a speed of 50 feet per second, the arc embraced being 135°, the coefficient of friction 0·4, and the allowable stress 275 pounds per square inch.

B.A.Sc. EXAMINATION.

DYNAMICS OF MACHINERY AND MACHINE DESIGN.

MONDAY, APRIL 3RD:—MORNING, 9 TO 12.

Examiner,.....J. T. NICOLSON, B.Sc.

1. A dynamo is driven from a motor of 50 H.P. by a horizontal belt and two equal pulleys one foot in diameter running 300 revolutions. Find the resultant pull on either machine.

2. A single flat iron bar (breadth 4 times the thickness) acts as a strut between the machines of last question. Find the size of section of the bar, assuming it to be hinged at the ends, and ten feet long. Take the ratio of stable to safe load four, and E = 29,000,000.

3. Explain with the necessary sketches how to find graphically the tangential effort on the crank pin of a single crank-direct acting engine; when a pair of cards, the weight of the reciprocating parts, and the speed of revolution are given.

4. Investigate a method of designing journals by the consideration of the heat generated by friction and dissipated by conduction per square inch of journal surface per minute.

5. Apply the method of last question to determine the breadth of an eccentric sheave for driving the slide valve (6″ long by 7 broad, with two steam ports each $5\frac{1}{2}'' \times \frac{3}{4}''$) of a steam engine working at 100 lbs. pressure and 350 revolutions. Take μ for slide valve at 0.1, for eccentric sheave 0·05; and the heat which a square inch of sheave surface can dissipate at 5 thermal units per minute.

6. A crane chain, which may be considered equivalent to a wrought iron bar one inch in diameter and five feet long, surges, so that a weight of 4 tons which it is carrying drops about an inch. Will the chain be thereby injured? Take E = 29,000,000, and the proof stress 10 tons.

7. The conductor of a certain drum armature consists of bars of copper $\frac{1}{4}''$ square and two feet long attached only at the ends. If the diameter of the armature be 15 inches and the speed of revolution 300 per minute, find the stress produced at the middle of the bars by centrifrugal force.

If the safe tensile stress on copper be 4,000 lbs., what should be the space between the circumferential wrappings which prevent bursting?

What section would the conductors be of, in order to be within the safe limit of tensile stress?

AFTERNOON, 2 TO 5.

8. The new flywheel of the Amoskeag Co., N.H., with wooden rim, has a total weight of about 50 tons, and mean rim diameter of 29 feet.

At 60 revolutions the engines connected with the wheel develop about 2,000 H.P.

Assuming that the whole weight of the flywheel is concentrated in the rim, and that the whole work of the engine in starting goes to increase the speed of the wheel, in how many seconds will the speed be 60 revolutions?

9. In last question, if the flywheel attained its normal speed in one-third of a minute, calculate the resulting bending moment on the arms, twelve in number; and suggest a cross shaped section to meet the case.

10. Investigate the work lost in friction in a journal and bearing per minute when the distribution of pressure is such that the vertical wear is constant.

11. Determine the limiting circumferential speed of a belt pulley with a cast iron rim.

12. Deduce an expression for the greatest tension in a belt; taking the effect of centrifugal force into account.

13. Investigate an expression giving the weight of a flywheel in terms of the coefficients of energy and of speed.

FIRST YEAR.

CHEMISTRY.

FRIDAY, APRIL 14TH:—MORNING, 9 TO 12.

Examiners, ... { B. J. HARRINGTON, B.A., PH.D.
NEVIL NORTON EVANS, M.A.SC.

1. How does Fluorine occur in nature? How may it be isolated? What are its properties?

2. How much Iron Pyrites would be required to make a ton of Sulphuric Acid? Give the properties of the Acid.

3. If in the manufacture of Water gas the reaction be represented by the equation $C + H_2O = CO + H_2$, what will be the cost of the gas per 1,000 cubic feet, assuming that Anthracite is pure Carbon and worth $5.00 per ton.

4. Give Reinsch's test for the detection of Arsenic.

5. What are the constituents of ordinary gunpowder? What the chief products of its combustion? What solvents would enable you to separate its constituents?

6. Give the formulae of any five of the following compounds:—Gypsum, Heavy Spar, Chili Nitre, Pearl Ash, Borax, Tartar-emetic, Glauber's Salt.

7. State what you know with regard to the composition of the ordinary varieties of glass?

8. Explain the division of the base-forming elements into groups for purposes of analysis.

9. Give characteristic tests for the following elements when in solution:—Bismuth, Lead, Aluminium, Zinc, Barium.

10. What quantities of Potassium Bromide, Manganese Dioxide and Sulphuric Acid would be required in order to obtain 50 grams of Bromine?

SECOND YEAR (*Department of Mining*).

PRACTICAL CHEMISTRY.

FRIDAY, APRIL 14TH:—MORNING, 9 TO 12.

Examiners, ... { B. J. HARRINGTON, B.A., Ph.D. / N. NORTON EVANS, M.A.Sc.

(Answer any ten questions.)

1. A solid substance having non-metallic lustre, and containing no organic matter, is submitted for analysis; describe carefully the treatment that it must undergo before it can be analysed in the ordinary wet way.

2. On adding Hydrochloric Acid to a solution containing no Silver, Lead, or Mercury, a precipitate is formed: What may this indicate, and why?

3. It is desired to precipitate the metals of the Copper and Arsenic groups from solution by means of Sulphuretted Hydrogen; what precautions should be observed before and during the precipitation?

4. Give equations representing the reactions that take place in any five of the following cases:—(*a*) Sulphuretted Hydrogen is passed into solution of Ferric Chloride. (*b*) Solution of Mercuric Chloride is treated with Stannous Chloride. (*c*) Solution of Aluminium Chloride is treated with Barium Carbonate. (*d*) Chromium Sesquioxide is fused with a mixture of Sodium Carbonate and Sodium Nitrate. (*e*) Lead Sulphide is treated with concentrated Nitric Acid. (*f*) Barium Chlorate is ignited.

5. An alloy contains Tin, Copper and Zinc: describe its qualitative analysis.

6. How much Ferrous Sulphide can be decomposed by 5 kilos of Sulphuric Acid, and how much Sulphuretted Hydrogen gas will be evolved?

7. Describe the separation of Barium, Strontium, and Calcium by means of absolute Alcohol.

8. How much Sulphuric Acid must be added to a solution containing 0.416 grm. of Barium Chloride in order to precipitate all the Barium as Sulphate. (Ba = 137.)

9. How can you distinguish (*a*) Potassium Chloride from Potassium Iodide, (*b*) Sodium Chlorate from Sodium Nitrate. (*c*) Mercurous from Mercuric Chloride, (*d*) Ferrous from Ferric Chloride, (*e*) Aluminium Chloride from Zinc Chloride?

10. Give the principal tests for four of the following acids: Sulphuric, Phosphoric, Carbonic, Sulphurous, Silicic, Nitric.

11. How can you distinguish in the dry way: (*a*) Cobalt from Nickel, (*b*) Copper from Chromium, (*c*) Silver from Lead, (*d*) Barium from Strontium?

THIRD YEAR—(*Department of Practical Chemistry*).

THEORETICAL AND ORGANIC CHEMISTRY.

SATURDAY, APRIL 8TH:—MORNING, 9 TO 12.

Examiner, ... B. J. HARRINGTON, B.A., PH.D.

1. Give illustrations of the methods employed in determining the chemical constitution of bodies.

2. State what you know with regard to the general properties of the Paraffins.

3. Explain the constitution of the Amines and Amides.

4. Describe the preparation of Formic from Oxalic Acid.

5. How many Butyl Alcohols are theoretically possible? How many have been prepared? Explain the differences in their constitution.

6. Describe briefly the preparation of Hydrocyanic, Cyanic and Thiocyanic Acids. Give the formula of Ferric Thiocyanate.

7. The examination of different Tartrates has led to the conclusion that the acid is bibasic. On ignition of normal Silver Tartrate, 100 parts yield 9.34 of Silver. Calculate the molecular weight of Tartaric Acid.

8. Give the preparation and properties of Dextrin and Lactose.

9. Discuss the principal methods which have been employed in determining the atomic weight of Oxygen and the results which have been obtained.

10. Explain the terms equivalent, atomic volume, molecular compound, osmotic pressure.

THIRD YEAR (*Department of Practical Chemistry*).

PRACTICAL CHEMISTRY.

FRIDAY, APRIL 14TH:—MORNING, 9 TO 12.

Examiner,.....B. J. HARRINGTON, B.A., PH.D.

1. How would you determine the melting point of a solid and the boiling point of a liquid?

2. Describe the calibration of a measuring flask, a pipette and a burette.

3. How would you estimate (*a*) the Sulphur and (*b*) the Zinc in a sample of Zinc Blende?

4. Give a method for the estimation of Ammonia in Sal-ammoniac.

5. How would you make a quantitative analysis of a sample of ordinary solder?

6. How much Iron can be converted from a Ferrous to a Ferric salt by 1 gram of Potassium Bichromate?

7. 25 c.c. of a normal solution of Oxalic Acid were found to neutralize 33 c.c. of a solution of Caustic Soda. How much Caustic Soda was present in a pint of the latter solution?

8. How much Barium is there in 50 c.c. of a deci-normal solution of the Hydroxide?

9. How would you estimate the NO_3 in a sample of Nitre?

10. A solution contains 0.5 gram of Lead Acetate. What volume of deci-normal Sulphuric Acid would be required to convert the Lead into Sulphate?

THIRD YEAR (*Department of Mining*).

PRACTICAL CHEMISTRY.

FRIDAY, APRIL 14TH:—MORNING, 9 TO 12.

Examiners, ... { B. J. HARRINGTON, B.A., Ph.D.
NEVIL NORTON EVANS, M.A.Sc.

(NOTE.—Answer any *eight* questions.)

1. How would you determine the specific gravity (*a*) of Quartz, (*b*) of Petroleum?

2. Through what preliminary treatment must a piece of Calcite pass before a portion is weighed out for analysis? Describe briefly the operations.

3. In a determination of Calcium, Ammonium Oxalate in presence of Ammonium Hydrate is used as the precipitant; how can you tell when enough of the precipitant has been added, and what are the general rules to be observed in the filtering and washing of such precipitates?

4. How much Silver Nitrate is required to precipitate all the Chlorine from a solution containing 0.585 grms. Sodium Chloride, and what will be the weight of the precipitate produced?

5. What precautions must be taken in igniting the precipitates obtained in the determinations of Copper, Lead and Silver, and why?

6. Describe a method of determining the Iron in a sample of Ferrous Sulphate.

7. 1 grm. of pure $MgSO_4 . 7H_2O$ was dissolved in water; after precipitation and ignition the Magnesium Pyrophosphate obtained was found to weigh 0.9 grm., and from this the percentage of MgO in the original substance was determined. Calculate the error in the percentage obtained by this analysis.

8. Describe briefly two methods of determining Potassium in Potassium Chloride.

9. In an estimation of Antimony, the Antimony was completely precipitated from solution by means of Sulphuretted Hydrogen, and the excess of this gas was driven off. Describe the subsequent operations in the determination of the antimony as $Sb_2 S_3$ and give reasons for any departures from the usual course of gravimetric analysis.

10. Describe the determination of Silica in an insoluble Silicate.

B.A. Sc. EXAMINATION (*Department of Practical Chemistry*).

INORGANIC CHEMISTRY.

SATURDAY, APRIL 15TH:—MORNING, 9 TO 12.

Examiner,.....B. J. HARRINGTON, B.A., PH.D.

1. Name the most striking examples of elements which are both acid-forming and base-forming, and give a number of compounds by way of illustration.

2. What do you understand by the influence of mass in chemical reactions?

3. Explain carefully the relation of Ozone to Oxygen.

4. What are the different kinds of action exhibited by Chlorine? Give illustrations.

5. Discuss the structure of the Nitrogen Oxides, and give the preparation and properties of the Peroxide.

6. Name the Oxyacids of Sulphur, and state what you know with regard to their constitution.

7. Into what two classes are the salts of Antimony divided? Explain the difference in constitution.

8. State what you know with regard to the manner in which Ammonium salts undergo decomposition.

9. How many series of compounds does the element Chromium form? What is its supposed valence in each? Explain the relations between Chromates and Dichromates.

10. How would you obtain a solution of pure Silicic Acid?

11. What metals are included in the Platinum group? Explain the chemical principles involved in the metallurgy of Platinum.

B.A. Sc. EXAMINATION (*Chemistry Course*).

ORGANIC CHEMISTRY.

MONDAY, APRIL 3RD:—MORNING, 9 TO 12.

Examiner,.....B. J. HARRINGTON, B.A., PH.D.

1. How may complex Hydrocarbons be built up from simpler ones?

2. Explain the difference between a Sulphonic Acid and an ethereal salt of Sulphuric Acid. Give examples.

3. In the examination of an organic body, the following percentage composition was obtained :—

Carbon	62.05
Hydrogen	10 36
Oxygen	27 59
	100.00

The vapour density was found to be 4.03 (air = 1). Deduce the molecular formula of the body.

4. Give the preparation, properties and constitution of ordinary Tartaric Acid.

5. How is Aldehyde prepared? Give its most striking chemical characteristics. How is it connected into Paraldehyde and Metaldehyde, and what is known as to the constitution of these two bodies?

6. By what series of reactions would you obtain Acetic Acid from Marsh Gas? Give equations.

7. Explain the supposed relationship of Glyceric and Tartronic Acids to Glycerin.

8. Why should we expect Toluene to yield two classes of substitution products? State what you know about the Halogen derivatives.

9. Explain briefly the constitution of each of the following :—Carbamic Acid, Acetamide, Benzoic Acid, Phthalic Acid, Anthraquinone.

10. State what you know with regard to the Nitro derivatives of Methane, Benzene and Toluene.

11. Describe the preparation of Benzene Sulphonic Acid.

B.A Sc. EXAMINATION (*Department of Practical Chemistry*).

PRACTICAL CHEMISTRY.

SATURDAY, APRIL 8TH :—MORNING, 9 TO 12.

Examiner, ...B. J. HARRINGTON, B.A., PH.D.

1. From the following data calculate the vapour density of a certain organic body :—$S = 0.1008$, $t = 16.5$, $V = 22$ cc., $B = 707.5$, $w = 14$.

2. Describe briefly the chemical analysis of a drinking water, discussing the interpretation of the results.

3. How would you make a quantitative analysis of a specimen of Labradorite?

4. Explain the use of Potassium Permanganate in the volumetric determination of Calcium and Lead.

5. Fifty-five cubic centimeters of a solution of Potassium Permanganate were required to oxydize 0.125 gram of Oxalic Acid. What was the strength of the Permanganate Solution?

6. How would you analyze quantitatively an alloy consisting of Copper, Nickel and Zinc?

7. A sample of Pyrolusite contains 80 per cent. of Manganese Dioxide. If 0.5 gram were dissolved in Hydrochloric Acid, what weight of Potassium Iodide would be just sufficient to absorb all the Chlorine evolved?

8. Give briefly the principal methods employed in the quantitative separation (*a*) of Nickel and Cobalt, (*b*) of Antimony and Lead, (*c*) of Chromium and Iron, (*d*) of Copper and Arsenic.

9. How may the proportions of Sulphur and Silicon in a sample of steel be estimated?

10. A solution of Cane Sugar gave in a two-decimeter tube an angular rotation of 3° 54′. The specific gravity of the solution was 1.012. What was the percentage of Sugar present?

B.A Sc. EXAMINATIONS (*Department of Mining*).

ASSAYING.

FRIDAY, 7TH APRIL:—MORNING, 9 TO 12.

Examiner, ...B. J. HARRINGTON, B.A., PH.D.

1. An ore consists of a mixture of Galena, Zinc, Blende, Iron Pyrites and Quartz. How would you determine the proportion of each metal present?

2. How would you estimate (*a*) the Ferrous Oxide and (*b*) the Manganese in an Iron Ore?

3. Describe Bunsen's method for the valuation of a Manganese Ore.

4. State what you know with regard to the interference of other metals in the estimation of Copper by the Cyanide process.

5. What weight of Iron must be dissolved in Sulphuric Acid in order to leave 0.15 gram as Ferrous salt after oxidation by 1 gram of Pyrolusite containing 80 per cent. of Manganese Dioxide?

6. How would you estimate the proportion of Calcium Phosphate in a sample of ordinary Apatite?

7. In the determination of Sulphur in 1.15 gram of a sample of coal the Barium Sulphate weighed 0.046 gram. What was the percentage of Sulphur in the coal?

8. Explain carefully the principles which should guide you in making up changes for the scorification assay.

9. State how you would ascertain the value of the materials represented by the samples exhibited.

THIRD YEAR.

ELECTRICAL ENGINEERING.

THURSDAY, APRIL 20TH:—MORNING, 9 TO 1.

Examiner,.... .. ..C. A. CARUS-WILSON, M.A., M.INST.C.E.

1. Given two volt-meters, the resistance of one being known; show how to find the resistance of the other without the use of any other instrument.

2. A rheostat of ten steps is required to maintain a constant voltage on a lighting main which may carry 10, 20, 30.....100 amperes. The drop in the main on full load—100 amperes—is 10 volts. Find the resistance on each successive step, which, carrying 10, 20, 30.....100 amperes respectively will keep the total drop constant.

3. Describe the principle of the ohm meter. Give some results of tests you have made with one of these instruments.

4. Write down the values of the resistances of a 150 volt Weston voltmeter and a 100 ampere Weston ammeter; of a starting rheostat for a 25 kilo. Watt Edison motor and a field regulator for a 12 kilo. Watt Edison shunt dynamo; of the positive and negative leads between the Engineering and Physics Buildings; of a 120 volt Cardew voltmeter; and a 16 candle-power Edison lamp, hot.

5. Write down the equation to the magnetic circuit; explain fully each symbol used; show how the constant is obtained; check the equation by the use of dimensions; and state the limitations of its application.

6. An iron ring of 1.2 square cm section is wound with 500 turns of wire; a current of 2 amperes gives a total flow of 18,000 cgs lines. What current would be required to produce the same flow if an air gap of one m m is introduced into the circuit?

7. Prove the equation for H in the case of the magnetic yoke. Explain the use of the yoke. Give a sketch, with dimensions, of a yoke which you consider would justify the use of the equation.

8. How many ampere turns would be required in a yoke having the test rod 22 m clear inside in order to bring H up to 90 ?

9. State and prove the equation for the coil used in calibrating a Ballistic galvanometer ; explain the method of calibration, and show what measurements are required. Give a sketch, with dimensions, of a coil you would use for this purpose.

10. State and prove the law of magnetic traction. Calculate the pull in pounds per square inch for an intensity of 7,000 c g s lines per sq. cm.

THIRD YEAR.

THURSDAY, APRIL 13TH :—MORNING, 9 TO 12.

Examiner, ... W. A. CARLYLE, MA E.

1. Give a comprehensive definition of a "vein" of mineral. Tell what you know about their form and occurrence, explaining "dip" and "strike."

2. When an ore body is found to be disturbed by faults, what would guide you in looking for the faulted part? Describe, with sketches the different kinds of faults.

3. In mine surveying, with what appliances should an engineer be supplied? Explain how to determine vertical and horizontal measurements on a mountain side with a transit and 500 ft. steel tape.

4. What do you mean by "under" and "overhand stoping"? Give sketches. Also tell how to work out a bed of iron ore 42 ft. thick.

5. Show how to timber up narrow and wide over-hand stops, and also how to protect the levels or drifts. Show how to measure and cut a stol so that it will fit the hitches exactly.

6. Describe clearly one method of sinking a shaft through bad ground, *i.e.*, quicksands or running gravel.

7. In hoisting, describe the tubs, buckets and cages.

8. Describe the various forms of ropes and cables used in hoisting or hauling. What precautions should be taken to preserve a cable as long as possible.

9. Discuss in what ways and how electricity may be used as power in under-ground work.

10. Describe the "endless-cable" system of under-ground haulage.

11. Name and describe the different forms of Cornish Pump, and explain how a Cornish pump for a shaft 1400 ft. deep, and still sinking, would be arranged.

12. Name the different ways a seam of coal of medium thickness may be worked, describing with sketches any one method. How is the coal broken from the main body?

Answer ten questions only, including Nos. 11 and 12.

B. A. SC. EXAMINATION.

METALLURGY.

WEDNESDAY, APRIL 5TH:—AFTERNOON, 2 TO 5.

Examiner, ... W. A. CARLYLE, MA.E.

1. Give some of the physical characteristics of gold, and describe how it is found in nature.

2. Describe the process of treating non-free milling gold ores by amalgamation. Specify what ores would be classed as free-milling.

3. Describe the use of the stamp battery, and describe, giving careful sketches, the several parts.

4. What method would you adopt for crushing the ore just brought from the mine to prepare it for (*a*) amalgamation if a gold ore, (*b*) for lixiviation if a silver ore?

5. Describe, with a sketch, the Brückner Roasting Furnace for copper ores, giving the manner of working, and compare the use of this form of furnace with the "Stetefeldt."

6. Name, giving the chemical composition, ten silver compounds found in silver-bearing ores.

7. Describe (*a*) the American Amalgamation or Washoe Process, *or* (*b*) the Russell Process of Lixiviation of silver ores.

8. Describe the process of desilverizing base bullion, and the production of refined lead.

9. Describe the Swansea method of treating copper ores.

10. What is meant by the following terms:—"slag," "bottoms," "amalgam," "extra solution," fahl ore, "bustle-pipe," "bosh," "hot blast," "cooling plates," "vanner."

11. Give the distinctive characteristics of "grey" and "white" pig-irons, and the uses to which each is applicable.

12. Give the chief chemical changes going on in the blast furnace for iron ores.

Answer any ten questions only.

SECOND YEAR.

ENGLISH COMPOSITION.

SATURDAY, APRIL 1ST :—2 TO 5 P.M.

Examiners,..... { CHAS. E. MOYSE, B.A.
W. J. MESSENGER, B.A.

1. Make corrections in the following, and give your reasons in each case :—

(*a*) It is not every painter who is calculated to show to so much advantage.

(*b*) His caligraphy was abominable.

(*c*) For a lengthened period his means were extremely limited.

(*d*) This may seem a paradox, but it is nevertheless a fact.

(*e*) He was sent with a verbal message to the doctor.

(*f*) The nation had implicit faith in the ability of the general.

(*g*) We cannot believe that these are the only alternatives.

(*h*) In short, the facts are as nearly as possible the precise converse of this.

(*i*) John, Arthur and myself were all there when it happened.

(*j*) No study or pursuit is better adapted for such enjoyment, or so well fitted to afford pleasure not to be repented of, than Natural History.

(*k*) A sojourn of five years in the military hospitals, camps and towns of Algeria have strengthened these opinions.

(*l*) He subsequently published his essay, and it proved to be one of the most valuable works that has ever issued from the press.

(*m*) Hardly had misconduct in one shape succumbed to treatment than it broke out in another.

(*n*) So gifted are they with correctness of ear, that they can reproduce an air after once hearing it with the most perfect exactness.

2. Make notes on the following pairs of words :—deteriorate and detract; predicate and predict; credible and credulous; continuous and continual; contemptible and contemptuous; detect and distinguish.

3. Write an essay of not less than 2 pages on *one* of the following subjects :—

(*a*) Music.
(*b*) Sport.
(*c*) A novelist.

Faculty of Law.

FACULTY OF LAW.

CONSTITUTIONAL HISTORY.

THURSDAY, 15th DECEMBER, 1892 :—3 TO 6, P M.

Examiner,.....N. W. TRENHOLME, D.C.L.

1. What are some of the things that give importance to the study of the Constitutional History of England?

2. Where are the principles and rules of that Constitution to be found; and give some account of the documents that constitute the written code of the constitution, and of their nature and importance?

3. Point out how the English Constitution is an evolution, and from what period Parliament, as at present composed, dates?

4. What are some of the advantages of an English Constitution as an instrument of popular government, and as regards the means and ways of working it, compared with modern written constitutions? What are some of its dangers and disadvantages, and the best means of protection against the same?

5. Give some account of the substitution of Parliamentary grants for feudal aids and revenues, and of the great influence of this change on the constitutional history of the nation?

6. What was, what has been called the great English Revolution of the 17th Century; and what marked change did the Constitution undergo during that period?

7. Give some account of the origin and history of the two great English political parties; and of Parliamentary Government by party through a cabinet or ministers as at present practised, noting any marked changes during the period in the influence of the Crown and the causes thereof?

8. How do you account for the paucity of needed reforms in the laws and constitution during the last century and first quarter of the present; and mention some of the great reforms that have since taken place?

9. Give some account of the Acts of Union with Scotland and Ireland, and of the differences in the position of these two countries since the Act of Union with Scotland.

10. What are the principal constitutional changes that have taken place in France since 1789?

CRIMINAL LAW.

SATURDAY, APRIL 1st:—2 TO 5, P.M.

Examiner, ... PROF. TRENHOLME.

1. What is criminal law; and give some account of the formation of the system of criminal law introduced into Canada at the Cession, and of some important ameliorations in it since and previous to the Criminal Code of 1892?

2. What are some of the most important changes and improvements effected by the Criminal Code: 1, in the substantive law; 2, in procedure?

3. What are the principal grounds of excuse for acts *prima facie* criminal? What rules does the Code adopt as regards excuses based on insanity? May drunkenness or ignorance of law ever be invoked as a defence?

4. What are treason, seditious libel, blasphemous libel, defamatory libel? What difference in the pleas admissible in these different kinds of libel? What was the Statute of Treasons, what Fox's Libel Act, what Lord Campbell's Act respecting libel?

5. Classify homicide, and give the essentials of each kind. Define murder and manslaughter in accordance with the existing law.

6. Classify the different offences against property, and indicate the essentials under the Code to constitute theft, false pretences, robbery, burglary, house-breaking, forgery, arson.

7. Give a brief account of the growth of the law of forgery. Indicate the proof required to be made in an ordinary case of forgery, and how it may be made.

8. Explain the following: petit treason, petit larceny, grand larceny, compound larceny, the pillory, benefit of clergy, peine fort et dure, deodand, imparl.

9. Give in proper terms and order the successive proceedings to conviction against an offender for an indictable offence, indicating the different pleas that may be pleaded and any exceptional provisions in procedure in case of treason or murder. State when and on what principle a jury may convict of a different offence from that stated in the indictment.

10. State the offence, if any, in the following instances, giving in each case the principle of your decision:—

(*a*) A being freshly pursued by B for robbery turns on B, and in order to escape inflicts on him a dangerous bodily injury of which B dies. Would the offence be different if the immediate cause of B's death was improper treatment?

(*b*) A, who resides in Canada, and has a wife living, marries B in the U. S. What facts would you require to prove to convict A of bigamy, and how would you prove them? Would B be a good witness against A?

(*c*) A finds a sovereign, or is paid one by mistake for a shilling. At first he intends to return it to the owner whom he knows, but subsequently keeps and appropriates it.

What is A's offence under the existing law, and what under the Code?

(*d*) A places a lighted candle under a bed in his house, intending to burn the house in order to obtain the insurance. The bed takes fire but the fire is extinguished before it burns any part of the house.

A is indicted for arson. Can he be convicted of it or at all? What proof would you make in such case and how?

(*e*) A promises to marry B, and thereby obtains money from her. He does not marry her, and in fact never intended to, as he is a married man.

What and wherein is the offence, if any, and would the case be different if B knew that A was married?

(*f*) Two men of the same name live in the same town. One receives a letter containing a cheque to order which he knows is for his namesake. He nevertheless keeps it, indorses the cheque with his usual ignature, obtains the money and appropriates it?

ROMAN LAW.

SATURDAY, APRIL 8TH:—2 TO 5 P.M.

Examiner,.....N. W. TRENHOLME, D.C.L.

1. Write a short essay on the position and importance of Roman Law in the history and growth of Law.

2. Give some account of the different periods in the history of Roman Law and of the characteristics of each.

3. Give an account and indicate the significance of: the Servian Constitution, The XII Tables, The Licinian Rogations, The Perpetual Edict of Salvius Julianus, The Theodoxian Code, The Compilations of Justinian.

4. Describe the different institutions that may be said to correspond with the subject matter of the First Book of Justinian's Institutes?

5. Classify persons in Roman Law relative to libertas, civitas, familias, and indicate in proper terms the rights enjoyed by each class under the jus publicum and jus privatum, and the changes of status that might take place?

O

6. Describe Maine's Epochs in the growth of law and the great agencies in its amelioration.

7. Scriptum jus est lex, plebiscitu, Senatus consulta, principum placita, magistratuum Edicta, responsa prudentium:

Give an account of each of these and indicate its place among the great agencies in improving the law?

8. Translate and explain the following: Omnes populi qui legibus et moribus reguntur, partim suo proprio, partim communi omnium hominum jure utuntur nam quod quisque populus ipse sibi jus constituit, id ipsium civitatis proprium est, vocaturque jus civile, quasi jus proprium ipsius civitatis. Quod vero naturalis ratio inter omnes homines constituit, id apud omnes peræque custoditur, vocaturque jus gentium, quasi quo jure omnes gentes utuntur.

9. According to Maine what is the difference between the Jus Gentium and Jus Naturale; and what their influence: 1. On Roman Law; 2. On International Law; 3. On Modern forms of political thought?

10. What inferences appear deducible from the XII Tables and other early systems as to the nature of primitive society and law?

11. Give an account of: 1. Early *ab intestate* succession; 2. Of early testamentary succession including the development of the different forms of wills?

12. Point out some of the ways in which the Roman principle of occupancy has influenced modern theories of acquisition and ownership, and give Maine's criticism of Blackstone on this subject. What is the value in early law of such divisions of property as Res Mancipi and Res Nec Mancipi?

13. "I know," says Maine, "nothing more wonderful than the variety of sciences to which Roman Law, Roman Contract Law more particularly has contributed modes of thought, courses of reasoning and a technical language." Give his reasons in support of the above statement.

14. Give some account of the nature and features of the earlier and later Roman criminal law and tribunals. When did a real criminal system begin? How do you account for the long absence of the death penalty in Roman Law?

LAW OF REAL ESTATE.

SATURDAY, MARCH 4TH.

Examiner,..... PROF. WURTELE, D.C.L.

1. Define the right of ownership.

2. What laws are applicable to and govern real estate?

3. Define the difference between a real right and a personal right, with respect to a piece of land?

4. What is the nature of the right of a lessee of real estate?

5. When and under what conditions can a person be compelled to give up his property?

6. What difference is there between the public domain of the Crown and the private domain of the Crown?

7. What is the object of a petitory action?

8. How many possessory actions are there? Define the object of each kind.

9. What actions relate to Servitudes? Define the object of each.

10. On whom does the burden of proof fall in a negatory action, and what is the reason of the rule?

11. What is the object of the action of boundary?

12. By whom and in what manner can bounds be placed, and by whom is the expense of determining boundaries borne?

LAW OF CONTRACTS.

FRIDAY, DECEMBER 16TH:—4 TO 6 P.M.

Examiner,.....C. A. GEOFFRION, D.C.L.

1. What is the difference between an obligation void and an obligation voidable; a judgment of nullity and a judgment of recision? What is the result of both judgments as to the time they take effect? Are there nullities which do not require to be proposed or pleaded?

2. What kind of warranty is due in case of eviction or latent defects when a dation *en paiement* has taken place in voluntary discharge of a natural obligation; does a partial payment of a natural obligation create a civil obligation for the balance of the natural debt?

3. Explain the distinction between the payment by a third party mentioned in article 1141 and the payment with subrogation authorized by article 1154.

4. Is the rule contained in article 1149 applicable to the heirs of the debtor or creditor; can one of several instalments of the same debt past due be tendered without violating this rule? What about arrears of a successive debt, *e g.*, an annual rent?

5. Do you apply articles 1151 and 1152 to loan for consumption or loan for use?

6. Can a debtor of two debts, one past due and the other not yet matured, claim imputation on the latter; and if he has that right, can he do so in all cases?

7. Describe what is current money and legal tender as defined by our statutes.

8. Can novation be effected of a natural obligation by a civil obligation or *vice versa*?

9. Will compensation take place between a debt secured and a debt unsecured?

10. Can the surety of a debtor losing benefit of compensation under article 1192 claim his release, as having taken place to his benefit prior to the assignment of the debt secured by him?

LEGAL BIBLIOGRAPHY.

TUESDAY, DECEMBER 13TH.

Examiner,..... ARCH. McGOUN, M.A., B.C.L., PROF.

1. Who was known as the oracle of the Customary Law? On what custom did he write chiefly?

2. Who was the most illustrious exponent of Roman Law in France in the XVI Century?

3. Mention some of the principal works of Pothier; about what period did he write; what makes his writings of special value as an exposition of Lower Canadian Civil law?

4. What important enactment is the chief basis of our system of Civil Procedure? Name some commentator upon it.

5. Give a sketch of an individual in the revolutionary period whose work had some influence in giving shape to the work of codification. What did he do?

6. Give name and short account of a writer of this century on Roman Law in modern system.

7. What is the nature of the works grouped under the name of Dalloz Jurisprudence Générale du Royaume?

8. Mention any four of the leading commentators on the Code Napoléon and some of their works.

9. What are the principal branches of our law derived chiefly from the laws of England?

10. Who is regarded as the founder of English Mercantile Law? State what you know of him.

11. How is the High Court of Justice in England divided? What is its relation to the Court of Appeals?

12. Which is the highest Court in the Empire, and what is the title of the highest judicial officer?

13. State what you know of the highest Court of Justice in France.

14. Give the names and subjects of works of three modern English writers who have contributed towards the codification of certain branches of the law.

15. Name any two authors on the law of insurance.

16. Name any work on Canadian Constitutional law.

Any twelve of the above questions to be answered.

CIVIL PROCEDURE.

WEDNESDAY, DECEMBER 14TH:—4 TO 6 P.M.

Examiner, ... PROFESSOR FORTIN.

1. What is an action? How are actions divided? Give a short description of each.
What conditions are required to entitle a person to bring an action?

2. How many kinds of pleas are there? State the object of each and when it lies.

3. What is an incidental demand? When does it lie?
An intervention? When does it lie? How is it made?

4. What is a sub-collocation? By whom and when can it be claimed? What are the remedies against a judgment of distribution?

5. Who can make a judicial abandonment of property? In what cases? How is it made?

6. How is civil imprisonment ordered and executed? How can the debtor obtain his discharge?

7. What is a writ of *capias?* When and against whom does it lie? Draw an affidavit against a debtor who is about to leave the province of Canada with intent to defraud his creditors?

8. How is the *capias* contested? How can the defendant be discharged from the *capias?*

9. What is a *mandamus*, and when does it lie? How is the demand made?

10. When does the writ commonly called *Quo warranto* lie?

11. What is a writ of *prohibition?* When does it lie?

12. What is an injunction? When does it lie?

N.B.—Second and Third year Students are not bound to answer the first three questions.

PROCEDURE CIVILE.

MERCREDI, 14 DÉCEMBRE:—4 A 6 P.M.

Examinateur,.....PROFESSEUR FORTIN.

1. Qu'est-ce qu'une action? Comment se divisent les actions? Donnez une courte définition de chacune.

2. Combien d'espèces de plaidoyers y a-t-il? Dites quel est l'objet de chacun et dans quels cas il y a lieu de les faire.

3. Qu'est-ce qu'une demande incidente? Dans quels cas peut-on en faire?

Une intervention? Quand peut-elle être faite? Comment est-elle formée?

4. Qu'est-ce qu'une collocation en sous-ordre? Par qui et dans quel cas peut-elle être demandée? Quels sont les recours contre un jugement de distribution?

5. Qui peut faire une cession judiciaire de ses biens ? Dans quels cas ? Comment se fait la cession ?

6. Comment la contrainte par corps est-elle obtenue et exécutée ? Comment le débiteur peut-il obtenir son élargissement ?

7. Qu'est-ce qu'un bref de *capias* ? Quand et contre qui peut-il émaner ? Rédigez une déposition contre un débiteur qui est sur le point de quitter la Province du Canada avec l'intention de frauder ses créanciers ?

8. Comment le *capias* est-il contesté ? Comment le défendeur peut-il obtenir son élargissement ?

9. Qu'est-ce qu'un *mandamus* ; et dans quels cas peut-il émaner ? Comment la demande en est-elle formée ?

10. Quand y a-t-il un bref communément appelé *Quo warranto* ?

11. Qu'est-ce qu'un bref de *prohibition* ? Dans quels cas peut-il émaner ?

12. Qu'est-ce qu'un bref *d'injonction* ? Quand peut-il émaner ?

N.B.—Les étudiants de deuxième et de troisième années ne sont pas tenus de répondre au trois premières questions.

CIVIL LAW.

WEDNESDAY, APRIL 19TH :—4 TO 6 P.M.

Examiner,.....JUDGE DOHERTY

1. What is the nature of the right to the enjoyment of the thing leased created by the contract of lease of things in favor of the lessee ? In what respects does his right differ from that of a usufructuary ?

2. What remedy has the lessee in the event of refusal by the lessor to deliver the thing leased : (*a*) where the thing leased is in the possession of the lessor, (*b*) where the thing leased is in possession of a third person ?

3. What is understood by "tacit renewal of a lease"? When does it take place ? Upon what is it based ? Does it give rise to a new engagement, or merely the continuation of the old ?

4. A leases a house to B. During the continuance of the lease, and by reason of a defect in construction existing at the time of the lease, but unknown to either party, the walls of the house crack, rendering the same uninhabitable, and causing serious damage to B.

What are the rights of the latter against A ? what would his rights be had the defect not existed at the time of the lease, but subsequently come

into existence, without fault on A's part? Give reasons for your answers.

5. What are the principal obligations of the lessee of a thing?

6. During the pendency of the lease of a house it is damaged by fire. The cause of the fire cannot be ascertained.

The tenant is deprived of one-third of the premises leased for a period of two months while the same are being repaired.

The damage to the property by the fire amounts to $2,000?

The lessor claims this sum from the lessee; the lessee on his part claims a deduction of $\frac{1}{3}$ of his rent for the two months above mentioned.

Is the claim of the lessor well founded?

Is the claim of the lessee well founded?

Give reasons for your answers.

7. A having leased a property to B for five years, sells the same during the first year of the lease to C? What are the rights of B against C? Are they affected by the registration or non-registration of his lease? What would they have been under the law prior to the Code?

8. What is the effect upon a contract of a lease of the expropriation for public purposes of the thing leased?

9. A, a builder, contracts with B to erect for the latter a house on land belonging to him (B). Eight years after, the house perishes by reason solely of the unfavorable nature of the soil on which it was erected. A had specially stipulated he would not be responsible for any defect in the soil? Is A liable in damages to B? Would he be so liable if the building had perished by reason of faulty plans furnished by the architect employed by B, and to whose plans A was by his contract bound to conform?

Give the reasons of your answers in both cases.

10. Is a contract for the rendering of personal services made for the life-time of the lessor binding? Is it so if made for the life-time of the lessee? In either case give the reason for your answer?

NOTARIAL PRACTICE AND CONVEYANCING.

SATURDAY, APRIL 22ND :—AFTERNOON.

Examiner, ... PROF. W. DE M. MARLER.

1. Give examples of rights which a person may have possessed, which do not form part of his succession? Does a succession ever include property of which the deceased is no longer the owner?

2. Can a succession be testamentary and abintestate at the same time?

3. What is the Inventory? What are its principal uses? and in general terms when is an Inventory required to be made?

4. Into what parts is an Inventory divided and describe them?

5. A person who is common as to property with his wife leaves five children, of whom two are minors as his heirs-at-law. His wife survives him. By whom would the Inventory be made and in whose presence?

6. What delays, if any, are granted to make the Inventory in cases of tutors, usufruct, substitution, Testamentary executors and to close a community dissolved by death, and what penalties are imposed for failure?

7. In the case of Testamentary executors when is an Inventory not required?

8. In question five, a Bank deposit is an asset of the community. Who would be entitled to receive it, and what would be necessary to obtain it?

9. Describe the declaration of transmission of immoveables required for registration purposes in cases of (*a*) intestate successions. (*b*) Testamentary succession.

10. A succession has been administered by executors who have had the seizing of the moveable and immoveable property for several years. Sketch the deed of partitions.

11. Distinguish between partitions judicially made and compulsory partitions.

12. What is the object of returns in matters of succession? State the general principle as to what property is subject to return, and the distinction between moveable and immoveable property?

TRADE-MARKS AND DESIGNS, AND PATENTS.

FRIDAY, APRIL 21ST:—AFTERNOON, 4 TO 6.

Examiner,..... PROF. ABBOTT, Q.C.

1. What is a Trade-mark? Give essential elements, and distinguish between the right of property in Trade-Marks, Copyright and Patents.

2. State the general principle governing the use of names and words as Trade-marks.

3. Define a "false trade-description."

4. In what cases may registration of a Trade-Mark be refused?

5. State briefly the general rules to be followed in deciding what would constitute an infringement of a Trade-Mark; and remedies civil and criminal.

6. Define "Letters Patent of Invention;" and state briefly the origin and sources of the law governing them.

7. State shortly what would and what would not be patentable.

8. What are the essentials of the specification and claim required from the applicant for a Patent?

9. In what cases may Commissioner object to issue a Patent? Particularize as to prior publication and user.

10. On what grounds may a Patent be forfeited or revoked?

11. What constitutes an infringement of a Patent? State briefly the general principles upon which question is to be decided.

PRESCRIPTION.

SATURDAY, MARCH 18TH:—3 TO 5 P.M.

Examiner,..... E. LAFLEUR, B.A., B.C.L.

1. (*a*) Can prescription be renounced by anticipation? (*b*) Is it lawful to stipulate in a contract that the right of action shall be barred by a shorter time than that fixed by the law for the prescription of that right? (*c*) Can a tutor, upon the advice of a family council and with the authorization of the Court, validly renounce a prescription acquired by a minor? Give reasons for your answer.

2. In what cases can the Court of its own motion supply the defence resulting from prescription?

3. Enumerate and briefly explain the various characteristics of the possession which avails for the purposes of prescription.

4. What is meant by *precarious* possession, and what is the effect of it in regard to acquisitive prescription?

5. A discounts B's note, receiving at the same time from B a number of bonds as collateral security for the payment of the note.

(*a*) If B pays the note at maturity, but neglects to obtain the return of the bonds, will A's possession of them after the extinction of the debt avail him to prescribe the ownership of the bonds

(*b*) If the note remains unpaid for more than five years after maturity, can B plead that the note is prescribed, the bonds being in A's possession all the time?

6. (*a*) Is prescription interrupted by the service of a petition for leave to plead *in forma pauperis*? By the filing of a claim with the curator to a debtor who has made a judicial abandonment? By the collocation of a creditor in the distribution of the proceeds of a sheriff's sale of immoveables? (*b*) Will a judicial demand brought against the principal debtor interrupt prescription against the surety? (*c*) Does the renunciation by a person of a prescription acquired affect the surety?

7. When does prescription of personal actions begin to run :—

(*a*) With respect to debts depending on a condition?

(*b*) With respect to actions in warranty?

(*c*) With respect to debts with a term?

8. State the period required for prescription in the following cases :—

Crown rents, municipal taxes, interest on judgments, damages resulting from offences and quasi-offences, damages for slander, actions in rescission of contracts for fraud, the acquisition of corporeal immoveables in excess of what is given by the title.

9. (*a*) What is the meaning of the expression "translatory title" as applied to prescription by subsequent purchasers?

(*b*) Is such title vitiated by the bad faith or the precarious title of the grantor?

(*c*) Is a *conditional* title available for the prescription of ten years under translatory title?

(*d*) Is a deed of partition a translatory title within the meaning of Art. 2251 C.C.?

10. Discuss briefly the question raised in *Robinson* vs. *Canadian Pacific Railway* with regard to the prescription of the action of the widow under Art. 1056 C.C. for damages occasioned by the death of her husband through the negligence of a railway company, and state the holding of the Privy Council on this point.

LAW OF EVIDENCE.

SATURDAY, MARCH 25TH.

Examiner,..... ....PROFESSOR ARCHIBALD

1. What is an authentic instrument? What is its effect? How may it be contradicted?

2. How can you obtain copies, making *prima facie* proof, of a will executed out of the Province of Quebec?

3. What persons are incompetent to give testimony?

4. In what cases can proof be made by testimony?

5. A sells to B in the presence of witnesses 20 casks of sugar, upon a sample of one-half pound extracted from one of them. This sample B takes away with him. Afterwards B refuses to accept the sugar. Can the contract be proved by parole testimony? Give your reasons.

6. In what cases and under what circumstances are leading questions admissible?

7. State the circumstances under which and the methods by which a witness may be discredited.

8. State summarily the different bases of the Dominion Electoral Franchise.

UNIVERSITY SCHOOL EXAMINATIONS, 1893.

I. Preliminary Subjects.

(In the order given in the Regulations.)

UNIVERSITY SCHOOL EXAMINATIONS.

I. PRELIMINARY SUBJECTS.

WRITING.

TUESDAY, JUNE 6TH :—MORNING, 11 TO 11.15

Examiner,..... GEO. PARMELEE, M.A.

1. Write (*a*) your name in full ;
   (*b*) your post office address ;
   (*c*) the name of your school.

2. (*a*) Write the numerals from 1 to 20 inclusive.
   (*b*) Write the letters of the alphabet in capitals.

3. Write :—

   An inadvertent step may crush the snail
   That crawls at evening in the public path ;
   But he that has humanity, forewarned,
   Will tread aside and let the reptile live.

DICTATION.

THURSDAY, JUNE 1ST :—MORNING, 10.30 TO 11.30.

In one respect it must be admitted that the progress of civilisation has diminished the physical comforts of a portion of the poorest class. It has already been mentioned that, before the Revolution, many thousands of square miles, now enclosed and cultivated, were marsh, forest, and heath. Of this wild land much was, by law, common, and much of what was not common by law was worth so little that the proprietors suffered it to be common in fact. In such a tract, squatters and trespassers were tolerated to an extent now unknown. The peasant who dwelt there could, at little or no charge, procure occasionally some palatable addition to his hard fare, and provide him-

self with fuel for the winter. He kept a flock of geese on what is now an orchard rich with apple blossoms. He snared wild fowl on the fen which has long since been drained and divided into corn fields and turnip fields. He cut turf among the furze bushes on the moor which is now a meadow bright with clover and renowned for butter and cheese. The progress of agriculture and the increase of population necessarily deprived him of these privileges. But against this disadvantage a long list of advantages is to be set off. Of the blessings which civilisation and philosophy bring with them a large proportion is common to all ranks, and would, if withdrawn, be missed as painfully by the labourer as by the peer. The market-place which the rustic can now reach with his cart in an hour was, a hundred and sixty years ago, a day's journey from him. The street which now affords to the artisan, during the whole night, a secure, a convenient, and a brilliantly lighted walk, was, a hundred and sixty years ago, so dark after sunset that he would not have been able to see his hand, so ill paved that he would have run constant risk of breaking his neck, and so ill watched that he would have been in imminent danger of being knocked down and plundered of his small earnings. Every bricklayer who falls from a scaffold, every sweeper of a crossing who is run over by a carriage, may now have his wounds dressed and his limbs set with a skill such as, a hundred and sixty years ago, all the wealth of a great lord..or of a merchant prince.. could not have purchased.

MACAULAY.

Note for the local Examiner.—The extract is to be read three times:—

1st time. In an ordinary manner, so as to give candidates a general idea of its drift. During this reading, all pens must be placed on the desks.

2nd time. Slowly, with distinct enunciation, for the candidates to take down.

3rd time. At ordinary speed, with proper pauses suggesting stops. *Any word may be repeated by the Examiner at the request of the candidate.*

The Examiner is particularly requested to tell the candidates to dot their *i's*, and to inform them that letters purposely formed ambiguously (for instance, a symbol that is intended to do duty for an *i* or an *e*) will be considered as mistakes. Numbers are to be written in words.

ENGLISH GRAMMAR.

THURSDAY, JUNE 1ST :—MORNING, 9 to 10.30.

Examiners, ... { JOHN L. DAY, B.A.
CHAS. E. MOYSE, B.A.
REV. T. BLAYLOCK, M.A.
REV. A. H. ROBERTSON, M.A.

(Division I must be attempted by all. Answer *two* questions from Division II, and *one* from Division III.)

I.

1. Analysis :—

(*a*) "That you have wronged me doth appear in this."

(*b*) "The hope that I shall be successful sustains me."

(*c*) "I have not from your eye that show of love as I was wont to have."

(*d*) "He ran so fast that I could not overtake him."

2. Parse (write the words one under another in column): My advice is that you do not meddle with the matter.

3. (*a*) Plural of: series, die (2 forms), mister, handful, man-servant, court-martial.

(*β*) Masculine of: roe, spawner, ewe, maid, heifer, votaress, bee, hind.

4. Past tense (one word) and past participle of: come, beat, lie (repose), pat, lay, slink, freight, shred, rive, heave.

II.

5. Specify the functions of the objective case.

6. (*a*) Define: consonant, substantive clause, abstract noun, phrase, gender, root, stem. (*b*) Which are the uses of the Infinitive Mood?

7. (*a*) State the various ways in which Adverbs are formed. (*b*) Which are the principal relations indicated by prepositions?

III.

8. (*a*) Enumerate the various uses of *but, there, that.* (*b*) Mention the suffixes which form diminutives. Examples of each.

9. (*a*) What is the force of these prefixes: a, mis, hypo, re, with; and (*b*) of these suffixes: ess, ish, sis, sm, some. Illustrate, and give the origin of the affixes in both (*a*) and (*b*).

ARITHMETIC.

FRIDAY, JUNE 2ND :—MORNING, 9 TO 10.30.

Examiners, ... { REV. PRINCIPAL ADAMS, D.C.L.
H. M. TORY, B.A.
F. TOPP, B.A.

Answer two questions from each of the three divisions.

SECTION I.

1. Simplify $\frac{4.4-2.8\dot{3}}{1.\dot{6}+2.6\dot{2}\dot{9}}$ of $\frac{6.8 \text{ of } 3}{2.2}$

2. If the food for 11 persons for 13 weeks cost $560.66, what will it cost to feed 26 persons for 11 weeks?

3. A ship worth $90,000 is entirely lost; $\frac{1}{8}$ of it belongs to B; $\frac{1}{4}$ to C; the rest to D. What should be the loss of each, $50,000 being received for insurance?

SECTION II.

4. Find the difference between the amount of $1200 due 2 years hence at 5 per cent. compound interest; and the present worth of $1200 due 2 years hence, discount being reckoned at 6 per cent.

5. How is a metre determined? A litre of air weighs 1.3 grammes; how many grains will a cubic foot of air weigh?

6. A person disposing of goods for $182 loses 9 per cent.; for what sum ought they to have been sold to gain 7 per cent.?

SECTION III.

7. Suppose one end of a ladder 100 feet long be placed upon the ground 60 feet from a tree, and the other end placed against the tree. How far up the tree will the ladder reach?

8. A does $\frac{7}{10}$ of a piece of work in 14 days; he then calls in B, and they finish the work in two days; how long would B take to do the whole work alone?

9. Find the alteration in income occasioned by shifting £3200 stock from the 3 per cents. at $86\frac{3}{8}$ to 4 per cent. stock at $114\frac{7}{8}$, the brokerage being $\frac{1}{8}$ per cent.

GEOGRAPHY.

TUESDAY, JUNE 6TH:—MORNING, 9 TO 10.

Examiners,..... { REV. T. BLAYLOCK, M.A.
CHAS. E. MOYSE, B.A.
REV. A. H. ROBERTSON, M.A.
JOHN S. DAY, B.A.

1. Give the names of the British Possessions in Asia. State the shortest routes from London to Hong Kong: (1) going East, (2) going West.

2. Which two continents resemble each other most in their general structural plan. Give the direction of the primary axis of each and of the secondary mountain ranges.

3. Name the principal rivers of Europe. State which has the greatest trade in England, Germany, Russia and France.

4. Explain the following geographical terms: (1) Atoll, (2) Bar, (3) Canyon, (4) Glacier, (5) Isotherm, (6) Littoral, (7) Plateau, (8) Sirocco, (9) Sound, (10) Zone.

5. Draw an outline map of Africa, insert the three chief rivers and lakes. Show the position of the countries bordering on the Mediterranean, and of the Soudan and Uganda.

BRITISH AND CANADIAN HISTORY.

FRIDAY, JUNE 2ND:—MORNING, 10.30 TO 12.

Examiners,..... { JOHN L. DAY, B.A.
CHAS. E. MOYSE, B.A.
REV. T. BLAYLOCK, M.A.
REV. A. H. ROBERTSON, M.A.

(Candidates who take British and Canadian History will answer *three* questions only from each group, *including the first in each.*) *Candidates who take British History only* will answer the first question of the five set on that subject, and any three of the remainder.)

I. BRITISH HISTORY.

1. Short notes on: (*a*) The Ordainers. (*b*) Dane-geld. (*c*) The Siege of Rochelle. (*d*) Ship-money. (*e*) Cade's rebellion. (*f*) Saxon Heptarchy. (*g*) Terms of Union of England and Scotland. (*h*) The Church of England in the reign of Edward VI.

2. The social condition of the Anglo-Saxons.

3. Outline the reign of Henry VIII.

4. (*a*) Sketch the career of Oliver Cromwell, and (*b*) the history of Calais in its relation to England.

5. Show the connection between (*a*) the Tudor Line and the Stuarts, and (*b*) between the Stuarts and the Guelph Line.

II. Canadian History.

1. Relate some facts regarding: (1) The Company of Merchants. (2) U. E. Loyalists. (3) The Seven Nations. (4) Clergy Reserves. (5) Port Royal. (6) Marquette. (7) General Murray.

2. An account of the war of 1812-14.

3. (*a*) How came the Sulpicians into possession of the Island of Montreal? (*b*) On what different occasions has Quebec been besieged?

4. Mention the most important constitutional changes that have taken place in the history of Canada since the Treaty of Paris.

5. Relate briefly the dealings which (1) France and (2) the United States have had with Canada.

NEW TESTAMENT HISTORY.

Tuesday, June 6th:—Morning, 10 to 11.

Examiners,..... .... { Rev. A. H. Robertson, M.A. / Chas. E. Moyse, B.A. / Rev. T. Blaylock, M.A. / John L. Day, B.A.

1. (*a*) How many times did Our Lord raise the dead? Give particulars of each case. (*b*) How many times did He feed the multitudes, and what number at each time?

2. Name any three parables of Our Lord, and give brief notes on each.

3. Give a brief account of the events at, and institution of, the Lord's Supper.

4. Name the Jewish feasts mentioned in the Gospels.

5. Give a brief account of: (*a*) The appointment of the Deacons. (*b*) The death of Stephen.

6. Who were (1) Zacharias, (2) Nathanael, (3) Nicodemus, (4) Barabbas, (5) Annas, (6) Festus, (7) Gallio, (8) Claudius Lysias, (9) Barnabas, (10) Agabus.

7. Mention an event in connection with (1) Egypt, (2) Cana, (3) Country of the Gadarenes, (4) Nain, (5) Mount of Olives, (6) Joppa, (7) Philippi, (8) Ephesus, (9) Appii Forum, (10) Athens.

II. Optional Subjects.

(In the order of the Regulations.)

II. OPTIONAL SUBJECTS.

LATIN.

MONDAY, JUNE 5TH:—MORNING, 9 TO 12.

Examiners, ... { REV. GEORGE CORNISH, LL.D.; VERY REV. DEAN NORMAN, D.D.; A. JUDSON EATON, M.A., PH.D.; REV. G. H. A. MURRAY, M.A.

I.

LATIN GRAMMAR AND COMPOSITION.

1. Decline the nouns *stella*, * *epitome*, *Aeneas*, *vir*, *caput animal*, *domus*; the adjective *niger*; the pronoun *idem*. Decline together *uterque consul*.

2. Give the general rules of gender. What is the gender of *ager*, *nomen*, *urbs*, *os* (ossis), *lacus*, *dies*.

3. Distinguish between the terms *base* and *stem* in inflection. What are the base and stem of *servus*?

4. Compare *carus*, *felix*, *similis*, *idoneus*, *malus*; *audacter*, *bene*.

5. Write down the Latin for 14, *9th*, 9 *each*, 1893.

6. Give the principal parts of *subvenio*, *placo*, *placeo*, *iuvo*, *augeo*, *parco*, *audio*, *fungor*, and name the cases they severally take after them.

7. Inflect *rego* and *audeo*, in the Imperfect Indicative and Subjunctive, Active and Passive; and *capio* in the Imperative, throughout.

8. State the chief use of the Ablative case, illustrating by examples.

9. Explain carefully the grammatical construction of *italicized* words in passages for translation under II., stating, where you can, the rule.

10. Translate into Latin:—

(1) The Roman province was far away from the brave Belgae. (2) On the third side they were separated by Lake Lemannus from our province. (3) An embassy to the neighboring States was undertaken by Orgetorix. (4) The corn, moreover, which they did not intend to carry with them, they ordered to be burned. (5) Were not the Helvetii hemmed in by Lake Lemannus and the river Rhone?

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* In answering questions 1 to 7, candidates are requested to mark by the usual signs all *long* vowels, *and these only*.

II.

Caesar and Virgil.

1. Translate :—

(*a*) Interea *ea legione* quam secum habebat, militibusque qui ex provincia convenerant, a lacu Lemanno, qui in flumen Rhodanum influit, ad montem Juram, qui fines Sequanorum ab Helvetiis dividit, milia *passuum* decem novem murum in altitudinem *pedum* sedecim fossamque perducit. Eo opere perfecto praesidia disponit, castella communit, *quo* facilius, si se *invito* transire conarentur, prohibere posset. Ubi ea dies quam constituerat cum legatis venit, et legati ad eum reverterunt, negat Se more et exemplo populi Romani *posse* iter ulli per provinciam dare, et si vim facere conentur prohibiturum ostendit.

(1) Proximo *die* instituto suo Caesar castris utrisque copias suas eduxit paulumque a maioribus castris progressus aciem instruxit, hostibus *pugnandi* potestatem fecit. Ubi ne tum quidem eos prodire intellexit, circiter meridiem exercitum in castra reduxit. Tum demum Ariovistus partem suarum copiarum quae castra minora *oppugnaret* misit. Acriter utrimque usque ad vesperum pugnatum est. Solis occasu suas copias Ariovistus multis et illatis et acceptis vulneribus in castra reduxit.

2. Give a brief account of the life of Julius Caesar.

3. Translate :—

(*a*) Musa, mihi caussas memora, quo numine laeso,
Quidve dolens, regina deum tot volvere casus
Insignem *pietate* virum, tot adire labores,
Impulerit. Tantaene animis caelestibus irae!

(*b*) O socii (neque enim ignari sumus *ante malorum*),
O passi *graviora*, dabit deus his quoque finem.
Vos et Scyllaeam rabiem penitusque *sonantis*
Adcestis scopulos ; vos et Cyclopia saxa
Experti. Revocate animos, maestumque timorem
Mittite. Forsan et haec olim meminisse iuvabit.
Per varios casus, per tot discrimina rerum
Tendimus in Latium, sedes ubi fata quietas
Ostendunt ; illic fas regna resurgere Troiae.
Durate, et vosmet rebus servate secundis.

(*c*) Obstupuit primo *adspectu* Sidonia Dido,
Casu deinde viri tanto; et sic ore locuta est:
Quis te, nate dea, per tanta pericula casus
Insequitur? quae vis inmanibus adplicat *oris*?
Tune ille Aeneas, quem Dardanio Anchisae
Alma Venus Phrygii genuit Simoentis ad undam?
Atque equidem Teucrum memini Sidona venire,
Finibus expulsum patriis, nova regna petentem
Auxilio Beli; genitor tum Belus opimam
Vastabat Cyprum, et victor *ditione* tenebat.
Tempore iam ex illo casus mihi cognitus urbis
Troianae, nomenque tuum, regesque Pelasgi.

4. (1) Explain the epithets *Scyllaeam, Cyclopa* (in Ext. *b*), *Sidonia, Dardanio* (Ext. *c*.). (2) To whom is reference made in the phrase *regina deum* (Ext. *a*)? (3) Derive *ostendunt, requirunt, surgo, egregiam, desistere.*

Translate (at sight):—

Caesar acceptis litteris hora circiter XI diei statim nuntium in Bellovacos ad M. Crassum quaestorem mittit, cuius hiberna aberant ab eo milia passuum XXV. Iubet media nocte legionem proficisci celeriterque ad se venire. Exit cum nuntio Crassus. Alterum ad C. Fabium legatum mittit ut in Atrebatum fines legionem adducat qua sibi iter faciendum sciebat. Scribit Labieno, si rei publicae commodo facere posset, cum legione ad fines Nerviorum veniat; reliquam partem exercitus, quod paullo aberat longius, non putat exspectandam; equites circiter quadringentos ex proximis hibernis colligit.

GREEK.

MONDAY, JUNE 5TH:—AFTERNOON, 2 TO 5.

Examiners, { REV. GEORGE CORNISH, M.A., LL.D.
VERY REV. DEAN NORMAN, D.D.
A. JUDSON EATON, M.A., PH.D.
REV. G. H. A. MURRAY, M.A.

(A)

HOMER, ILIAD, BOOK IV.

1. Translate:—

(*a*) Τὸν δ' ἀπαμειβόμενος προσέφη κρείων Ἀγαμέμνων.
"εἰ γαρ δὴ οὕτως εἴη, φίλος ὦ Μενέλαε.
ἕλκος δ' ἰητὴρ ἐπιμάσσεται, ἠδ' ἐπιθήσει
φάρμαχ' ἅ κεν παύσῃσι μελαινάων ὀδυνάων."
Ἦ, καὶ Ταλθύβιον Θεῖον κήρυκα προσηύδα.
"Ταλθυβί', ὅττι τάχιστα Μαχάονα δεῦρο καλέσσον
φωτ' Ἀσκληπιοῦ υἱὸν ἀμύμονος ἰητῆρος,
ὄφρα ἴδῃ Μενέλαον, ἀρήϊον Ἀτρέος υἱόν,
ὅν τις ὀϊστεύσας ἔβαλεν, τόξων εὖ εἰδώς,
Τρώων ἢ Λυκίων, τῷ μὲν κλέος, ἄμμι δὲ πενθος."

(*b*) Ἦ ῥα, καὶ ἐξ ὀχέων ξὺν τεύχεσιν ἅλτο χαμᾶζε·
δεινὸν δ' ἔβραχε χαλκὸς ἐπὶ στήθεσσιν ἄνακτος
ὀρνυμένου· ὑπο κεν ταλασίφρονα περ δέος εἷλεν.
Ὡς δ' ὅτ' ἐν αἰγιαλῷ πολυηχέϊ κῦμα θαλάσσης
ὄρνυτ' ἐπασσύτερον Ζεφύρου ὑπο κινήσαντος·
πόντῳ μέν τε πρῶτα κορύσσεται, αὐτὰρ ἔπειτα
χέρσῳ ῥηγνύμενον μεγάλα βρέμει, ἀμφὶ δὲ τ' ἄκρας
κυρτὸν ἰὸν κορυφοῦται, ἀποπτύει δ' ἁλὸς ἄχνην·
ὣς τότ' ἐπασσύτεραι Δαναῶν κίνοντο φάλαγγες
νωλεμέως πόλεμονδε.

2. Comment briefly on the underlined words and phrases in the above extracts. Can you see any traces of the digamma? If so, point them out.

3. Translate with short explanatory and grammatical notes of:—

(*a*) ἀλλ' ἄγ' ὀΐστευσον Μενελάου κυδαλίμοιο. (*b*) πολυδίψιον. (*c*) παπταίνων ἤρωα Μαχάονα. (*d*) ἀνεμώλια βάζεις. (*e*) ἡμεῖς καὶ θήβης ἕδος εἴλομεν ἑπταπύλοιο.

4. Distinguish between θάλασσα, πόντος and πέλαγος; τόξον and λόγχη; ἄνθρωπος and ἀνήρ; αἰγιάλος, ἀκτή, and λιμήν.

(B)

XENOPHON, ANABASIS, BOOK I.

5. Translate :—

(*a*) πρὸς δὲ βασιλέα πέμπων ἠξίου ἀδελφὸς ὢν αὐτοῦ δοθῆναι, οἳ ταύτας τὰς πόλεις μᾶλλον ἢ Τισσαφέρνην ἄρχειν αὐτῶν, καὶ ἡ μήτηρ συνέπραττεν αὐτῷ ταῦτα· ὥστε βασιλεὺς τὴν μὲν πρὸς ἑαυτὸν ἐπιβουλὴν οὐκ ᾐσθάνετο, Τισσαφέρνει δὲ ἐνόμιζε πολεμοῦντα αὐτὸν ἀμφὶ τὰ στρατεύματα δαπανᾶν. ὥστε οὐδὲν ἧχθετο αὐτῶν πολεμούντων. καὶ γὰρ ὁ Κῦρος ἀπέπεμπε τοὺς γιγνομένους δασμοὺς βασιλεῖ ἐκ τῶν πόλεων ὧν Τισσαφέρνης ἐτύγχανεν ἔχων.

(*b*) ὅτι μέντοι ἀδικεῖσθαι νομίζει ὑφ' ἡμῶν οἶδα, ὥστε καὶ μεταπεμπομένου αὐτοῦ οὐκ ἐθέλω ἐλθεῖν, τὸ μὲν μέγιστον, αἰσχυνόμενος, ὅτι σύνοιδα ἐμαυτῷ πάντα ἐψευσμένος αὐτόν, ἔπειτα καὶ δεδιὼς, μὴ λαβών με δικην ἐπιθῇ ὧν νομίζει ὑπ' ἐμοῦ ἠδικῆσθαι.

(*c*) ἐπεὶ δὲ τῇ ἡλικίᾳ ἔπρεπε, καὶ φιλοθηρότατος ἦν καὶ πρὸς τὰ θηρία μέντοι φιλοκινδυνότατος. καὶ ἄρκτον ποτὲ ἐπιφερομένην οὐκ ἔτρεσεν, ἀλλὰ συμπεσὼν κατεσπάσθη ἀπὸ τοῦ ἵππου, καὶ τὰ μὲν ἔπαθεν, ὧν καὶ τὰς ὠτειλὰς φανερὰς εἶχε, τέλος δὲ κατέκανε· καὶ τὸν πρῶτον μέντοι βοηθήσαντα πολλοῖς μακαριστὸν ἐποίησεν.

6. Parse carefully and give the principal parts of the following verbs:—*ἠξίου, ἠσθάνετο, δαπανᾶν, ἐτύγχανεν, δεδιὼς, οἶδα, ἐπιφερομένην, ἔπαθεν.*

7. Write a concise note about of each the following words:—*ἀνδρά-ποδον, ἀσπίς, δαρεικός, δορπηστος, παιανίζω, πλαίσιον, σατράπης, Σάτυρος, στλεγγίς.*

(C)

GREEK GRAMMAR.

1. Decline, with the article, *γένος, ἀνήρ, πόλις, σπλεγγίς, νῆσος, βασιλεύς, θυγάτηρ, δράκων, γόνυ, τριήρης.*

2. Compare *μέλας, αἰσχρός, ἀγαθός, πολύς, γεραιός, ἄνω, εὖ, σοφῶς, ταχύς, φίλος.*

3. Write in Greek *three, seventh, eleven, fourteenth, twenty, thirtieth, one hundred, one thousand, ten thousand, once, twice, thrice.*

4. Inflect *εἰμὶ* in the imperfect indicative and subjunctive; *τύπτω*, in the first aorist indicative, active; *τιμάω*, in the imperfect subjunctive, passive; *ἵστημι*, in the second aorist imperative, active; *δίδωμι*, in the second aorist infinitive, active and passive.

5. Write the Greek prepositions under the cases they govern.

6. Express in Greek:—Cyrus having equipped forty triremes crosses the Euphrates; he proceeds into Cilicia by the shortest route; Clearchus draws up his army in battle array; the queen admires the beautiful gifts of the well-disposed citizens; Tissaphernes sent for him, but he said that he would not go.

FRENCH.

THURSDAY, JUNE 1ST :—AFTERNOON, 3.30 to 5.30.

Examiners, { P. J. DAREY, M.A., B.C.L., LL.D., OFFICIER D'ACADÉMIE
REV. J. L. MORIN, M.A.

N.B.—Let the candidates write the Dictation, the first part, and the second part on *three* different papers.

I

Les Religieux du Mont St. Bernard.

1. Translate into English :—

Au sommet des Alpes, une soirée nébuleuse amollit le courage ; je me décidai à passer la nuit avec les religieux hospitaliers qui partageaient mes pressentiments Ils ne nous trompèrent point. A six heures ce plateau glacé fut presque enseveli dans les ténèbres, les nuées poussées par un vent du nord-ouest, avec la rapidité d'une flèche, tourbillonnaient autour de l'enceinte des rochers ; déjà retentissait (*a*) le bruit lointain des avalanches ; et des atômes de neige serrée, divisée comme de la poussière, soit en se détachant des montagnes, soit en tombant du ciel, en interceptaient (*b*) la faible lumière et voilaient tous les objets d'alentour.—*Maillet du Pan.* (*a*), (*b*) What are the subjects of those two verbs ?

2. Why cannot *de les* be contracted into *des* in : *je serai charmé de les voir.*

3. Explain the rules to write proper names in the plural ? Give examples.

4. Write the French for *seventy, ninety-five, eighty-seven, three hundred and fifteen.*

5. Give the French for *his brother, his sister, his brothers and mine,* and give the rules to write correctly those possessive adjectives into French and that possessive pronoun.

6. Write the feminine of *fou, vertueux, jumeau, témoin, gouverneur, instituteur.*

7 What are the two words you use to translate *better* into French? When do you use the one and when the other? Give examples.

8. Translate in two ways : *I must have books.*

9. Write one person of all the simple tenses of *offrir, acquérir, s'en aller, être.*

10. Write correctly the past particles in : Ils se sont *vu* et ils se sont *parlé.* Explain the rule.

II.

1. Translate into French :—

At the end of April, one thousand seven hundred and fifty-five, I was going to Piedmont by the way o' the great St. Bernard. At about four o'clock in the afternoon, the small caravan with which I had crossed this dangerous pass reached the summit of the mountain, and after having restored its strergth in the hospital established in that desert, it resumed its way in order to put up the same evening at the valley of Aost. Already the sun had lost its color and the sky even its serenity. The clouds were commencing to creep along the tops of the rocks and to accumulate in the narrow straits of that solitude.

2. Translate into French :—

The rose is more beautiful than the violet. The most wicked of men. The night is as short as the day. You have my book, give it to me. Give these keys and those of our house to my uncle. You have torn my coat, give me that one. He who dines with us is my cousin's best friend. They who are lazy are unhappy. Look at those two houses and tell me which you prefer. There has fallen too much rain this year.

GERMAN.

WEDNESDAY, JUNE 7TH :—AFTERNOON, 3.30 TO 5.

Examiners,..... { A. J. EATON, M.A., PH.D.
L. R. GREGOR, B.A.

1. Translate :—

(A.) Der Engel, der die Blumen verpflegt und in ſtiller Nacht den Thau darauf träufelt, ſchlummerte an einem Frühlingstage im Schatten eines Roſenſtrauchs. Und als er erwachte, da ſprach er mit freundlichem Antlitz: „Lieblichſtes meiner Kinder, ich danke dir für deinen erquickenden Wohlgeruch und für deinen kühlen Schatten. Könnteſt du dir noch etwas erbitten, wie gern würde ich es dir gewähren."

(B.) Ich wohn' in einem ſteinernen Haus,
Da lieg' ich verborgen und ſchlafe ;
Doch ich trete hervor, ich eile heraus,
Gefordert mit eiſerner Waffe.
Erſt bin ich unſcheinbar und ſchwach und klein,

Mich kann dein Atham bezwingen;
Ein Regentropfen ſchon fangt mich ein,
Doch mir wachſen in Siege die Schwingen;
Wenn die mächtige Schweſter ſich zu mir geſellt,
Erwachſ' ich zum furchtbar'n Gebieter der Welt.

2. Translate:—

(*a*) Our parents were living in Frederick street. (*b*) Who has bought this black horse? (*c*) I laid the pens upon the table, but they are no longer there. (*d*) What would you do with your money if you men were rich? (*e*) The traveller is just as weak to-day as he was yesterday. (*f*) My eldest son was born on the ninth of November. (*g*) Twenty-five years ago our neighbour had only a hundred dollars. (*h*) When we were going home we met our fiends. (*i*) I must be home this evening before ten o'clock. (*j*) He who is contented is always happy. (*k*) To whom have you written a letter? (*l*) Whose hat is this? Is it yours or your brother's?

3. Give the nominative plural of the following substantives:—

Zeitung	Hund	Wolf	Zeit	Geſchlecht
Vogel	Hand	Baum	Palaſt	Blume
Korb	Frau	Vetter	Graf	Biſchof
Sturm	Weib	Feiertag	Soldat	Platz.

4. Give the meanings and the other two principal parts of the following verbs:—

Singen, reiten, fallen, gehen, denken
Ziehen, liegen, fingen, ſtehlen, nehmen.

5. Give the third person singular, with English meaning or name of tense, of all tenses of the indicative, subjunctive, and conditional moods of werden

6. Translate:—The fifth fifthly, it is the fifth of May, a fifth part, five and a half.

7. Distinguish between vor mir and vor mich. unter den Tiſch and unter dem Tiſch.

State the distinction in general terms.

8. Compare the following adjectives :—

Kurz, träge, hoch, viel, süß.

9. Decline in the singular the German for *young woman, which long lesson.*

10. Give six terminations which are invariably feminine.

11. Make a table of the personal pronouns—all genders, cases, and numbers.

GEOMETRY.

FRIDAY, JUNE 2ND :—AFTERNOON, 2 TO 4.

Examiners, ... { REV. PRINCIPAL ADAMS, D.C.L.
H. M. TORY, B.A.
F. TOPP, B.A.

[Answer six of the eight questions of which 4 or 5 must be one, avoid repetitions. Ordinary symbols and abbreviations may be used.]

1. The opposite sides and angles of a parallelogram are equal, and the diagonal bisects the area of the parallelogram. Prove this.

(*a*) Prove that the diagonals of a parallelogram bisect each other; and that (*b*) if the diagonals of a quadrilateral bisect each other the figure is a parallelogram.

2. If a third straight line cross two parallel straight lines, prove (*a*) that the alternate angles are equal; (*b*) that the exterior and interior angles on the same side are equal; (*c*) that the two interior angles on the same side are together equal to two right angles.

(*d*) If the straight line bisecting the exterior angle of a triangle be parallel to the base the triangle is isosceles.

3. If in a triangle the square of one side is equal to the squares of the other two sides together, these two sides shall contain a right angle. (*a*) Prove this. (*b*) Find a square equal to half a given square; (*c*) equal to three times a given square.

4. AB is bisected at C, and produced to D: (*a*) show that the rectangle AD, DB together with square on CB = square on CD. (*b*) Show how to prove from this that the rectangle contained by the sum and difference of two straight lines equals the difference of squares of the two straight lines.

5. $A\,B\,C$ is a triangle, B is an obtuse angle, AD is perpendicular from A on the direction of $B\,C$. (*a*) Prove that the square on AC = squares on AB, BC together with twice rectangle CB, BD.; (*b*) also that square on AB together with twice rectangle BC. CD = sum of squares on AC and CB.

6. (*a*) No two circles can touch in more than one point internally or externally.

(*b*) Granted that the two touching lines from a point to a circle are equal, prove that if the four sides of a quadrilateral touch a circle, the sum of one pair of opposite sides equals the sum of the other pair.

7. (*a*) In equal circles equal angles stand on equal arcs, whether those angles be at the centre or the circumference.

(*b*) A quadrilateral is inscribed in a circle: show that the sum of the angles in the four segments exterior to the quadrilateral is equal to six right angles.

8. (*a*) On a given straight line to describe a segment of a circle containing a given angle.

(*b*) The angle in a semicircle is a right angle.

(*c*) Every right-angled triangle can be divided into two equal isosceles triangles. Prove this, and say whether the triangles are equal in all respects.

ALGEBRA.

THURSDAY, JUNE 1ST:—AFTERNOON, 2 TO 3.30.

Examiners,..... { REV. PRINCIPAL ADAMS, D.C.L.
H. M. TORY, B.A.
F. TOPP, B.A.

1. Find L. C. M. of $2\,(x^2-y^2)$, $6\,(x^2+y^2)$, $5\,(x^4-y^4)$, $2\,(x^3-y^3)$.

2. Simplify $\dfrac{1}{x^2-7x+12} + \dfrac{2}{x^2-4x+3} - \dfrac{3}{x^2-5x+4}$;

and show that $\left(\dfrac{a^3-b^3}{a-b}\right)^2 - \left(\dfrac{a^3+b^3}{a+b}\right)^2 = 4\,ab\,(a^2+b^2)$.

3. Extract the square root of $4\,x^8-4\,x^6-7\,x^4+4\,x^2+4$.

4. Solve the equations

(*a*) $\begin{cases} \frac{1}{3}(x+y) = \frac{1}{5}(x-y) \\ 3x+11y = 4 \end{cases}$

(*b*) $3x^2+1 = \dfrac{28x}{5}$

(*c*) $\begin{cases} x^2+xy = 24 \\ xy+y^2 = 12 \end{cases}$

5. Multiply $4x^{\frac{5}{2}} - 12x^{\frac{3}{4}} - 24x^{-\frac{3}{4}} + 16x^{-\frac{3}{2}}$ by $x^{\frac{1}{2}} + x^{-\frac{1}{2}}$; and show that $3\sqrt{2} \div 4\sqrt{3} = \frac{1}{4}\sqrt{6}$

6. A and B are at present of the same age; if A's age be increased by 36 years and B's by 52 years, their ages would be as 3 to 4; what is the present age of each?

7. Find two numbers such that their sum is 14 and the difference of their squares $\frac{1}{4}$.

TRIGONOMETRY.

FRIDAY, JUNE 2ND:—AFTERNOON, 4 TO 5.30.

Examiners, ... { REV. PRINCIPAL ADAMS, D.C.L. / H. N. TORY, B.A. / F. TOPP, B.A.

1. Sin $A = \frac{3}{4}$; find cos A and tan A.

2. Shew that sin α = cos $(90° - \alpha)$ = sin $(180° - \alpha)$.

3. Given that the sine of an angle is $\frac{2}{3}$, construct the angle.

4. Express the unit of circular measure in degrees. Reduce 415° to circular units; and .24 circular units to degrees.

5. Show that

(1) $\tan^2 C - \tan^2 B = \dfrac{\cos^2 B - \cos^2 C}{\cos^2 B \cdot \cos^2 C}$

(2) $\cot^2 B + \tan^2 B = \sec^2 B \cdot \operatorname{cosec}^2 B - 2$.

(3) $\sec^4 B + \tan^4 B = 1 + 2 \sec^2 B \tan^2 B$.

6. Prove that

(1) $\sin P + \sin Q = 2 \sin \dfrac{P+Q}{2} \cos \dfrac{P-Q}{2}$

(2) $\tan (A + B) = \dfrac{\tan A + \tan B}{1 - \tan A \tan B}$

(3) $\cos 2C = 1 - 2 \sin^2 C$.

(4) $\dfrac{\cos C - \cos 3C}{\sin 3C - \sin C} = \tan 2C$

ENGLISH LANGUAGE.

MEIKLEJOHN:—*English Language*, Parts I, II, III.
TRENCH:—*Study of Words.*

THURSDAY, JUNE 8TH:—3.30 TO 5.30 P.M.

Examiners, ... { CHAS. E. MOYSE, B.A.
REV. PRINCIPAL ADAMS, D.C.L.
REV. J. HEPBURN, M.A.
JOHN L. DAY, B.A.

(Candidates will answer section A, *which is obligatory*, any *two* questions of section B, *one* question of section C, *two* questions of section D and *two* questions of section E.)

A

Analysis:—

(*a*) This band dismissed, behold, another crowd
Preferred the same request and lowly bowed.

(*b*) What right, what true, what fit we justly call,
Let this be all my care.

B

1. (*a*) State the conditions which a perfect alphabet must fulfil, and show that the English alphabet violates them.

(*b*) Make notes on the formation of the following words: widower, children, kine, pea (singular), Lady-day; and also on the phrase "for Jesus Christ his sake."

2. (*a*) Give an instance of an adjective used factitively.

(*b*) Give the origin of *twain*, and write its doublet.

(*c*) Classify adjectives, giving subdivisions and one example of each.

(*d*) Show in as many ways as you can how compound adjectives are formed.

3. (*a*) Distinguish between the infinitives in *I want to see him* and *I went to see him*, and explain their history.

(*b*) Write what you know concerning the various verbal forms in *ing*, and give an example of the use of each.

(*c*) Give three examples of causative verbs formed from other verbs by a change of the stem.

4. (*a*) Classify the following auxiliaries: be, have, may, will.

(*b*) Show how *shall* and *will* are used in the future tense.

(*c*) Name three verbs which take two objects. Give one example of each in the active voice. Change your sentences to the corresponding passive form.

(*d*) Give the second person singular of all the tenses of the Indicative and Subjunctive moods of *beat* in the Passive voice.

5. Make historical notes on the Pronouns (Personal, Interrogative Relative, Indefinite).

C

1. (*a*) By what devices may *emphasis* in writing be attained? Give examples.

(*b*) The wings of night; they died for lack of bread; he has a very long purse. Name the figures of speech exemplified.

2. (*a*) Explain quatrain, elegiac verse, ballad metre, Alexandrine, heroic verse.

(*b*) Give examples of tautology and mixed metaphor.

3. (*a*) Give the characteristic Anglo-Saxon prefix or termination, as the case may be, of the following: The present participle, the past participle, the present indicative plural, the past indicative plural, noun plurals, and

(*b*) Show how they were changed in the subsequent period.

4. (*a*) Explain the spelling of such words as *night*. Make notes on the italicized portions of the following words: hail, day, *edge*.

(*b*) Give three examples of Latin doublets, three examples of Latin triplets and three examples of Greek doublets.

D

1. Comment on the words Albert, cavalloni, cerf-volant, topaz, carbuncle.

2. In speaking on History in words, the following matters are referred to:

(*a*) The existence of the word *church* in Anglo-Saxon.

(*b*) The growth of Christianity in cities.

(*c*) The gradual passing of a legal term into the vocabulary of the church.

(*d* The use of the word *Frank* in the East.

(*e*) The injustice in the use of the word *mammetry*.

Write on each.

3. Say what general statement is illustrated in the words journal, quarantine, rubric, *white black*bird, New Forest, Naples, Wednesday, lunacy. Write on each word. What allusion is made to St. Paul and Phœbe?

E

1. State the causes and the sources of New words. Illustrate very briefly. What do you notice in the words turtle, marble, purple?

2. (*a*) Define a synonym. How does Trench speak of "scarlet and green," in this connection?

(*b*) Give the Anglo-Saxon equivalent of lunes, nave, plume cure, inimical.

(*c*) Give three good examples of "Etymology at random."

3. (*a*) State very briefly the main arguments against phonetic spelling, and give two examples which illustrate it.

(*b*) Homonyms: write on the words school, seal, port, quire, bull, *giving all the etymologies concerned.*

ENGLISH LITERATURE.

MEIKLEJOHN, *English Language*, Pt. IV; SHAKSPERE, *Julius Cæsar*; SCOTT, *Lady of the Lake.*

TUESDAY, JUNE 6TH:—AFTERNOON, 2 TO 3.30.

Examiners, ... { REV. PRINCIPAL ADAMS, D.C.L.; CHAS. E. MOYSE, B.A.; REV. J. HEPBURN, M.A.; JOHN L. DAY, B.A.

(Not more than *two* questions are to be answered from each division.)

I.

1. Name the author of the "Canterbury Tales" and the author of the "Faery Queene"; give the chief characteristics of these two great works, and name one other poem of the same authors; also name a prose writer (with one work) contemporary with each.

2. Write a short life of Milton, giving the distinct periods into which his literary life may be divided, and distinguish between them; refer his best known works, both prose and verse, to their proper period; give some estimate of Milton's rank as an author.

3. Name one work of following authors: John Dryden, Alexander Pope, Thomas Hobbes, William Cowper, William Wordsworth, Byron, Shelley, Thackeray, Tennyson, Matthew Arnold.

Name the author of the following works, also with dates of life: Clarissa, Pamela, Novum Organum, Decline and Fall of Roman Empire, Tales of a Grandfather, Pleasures of Hope, Pleasures of Memory, Essays of Elia, Endymion.

Name four noted writers of Sonnets and three Historians of high literary rank.

II.

Julius Cæsar.

4. It has been observed that "Brutus was the true hero of this Tragedy and not Cæsar." Is this justified by the play? Contrast, so far as you can, the characters of Brutus and Cæsar as here portrayed.

5. Mention any one reference to each of the following in the play:—Pompey, Tyber, Ides, Æneas, Capitol, Erebus, Octavius, enfranchisement, Lethe, Ate, Olympus, Plutus, proscription, Ghost, Epicurus, Thassos, Sardis.

Write a brief note on each word.

6. What two women are presented in the play as characters? What part do they play? How are they related to others in the play?

Refer concisely to the parts taken by the following: Antony, Cicero, Casca, Cinna (2), Lepidus.

In what three scenes is this play laid?

III.

Lady of the Lake.

7. Give the titles of the six Cantos into which this poem is divided. What is the time of action and how divided? Mention one song or ballad in five out of the six cantos, pointing out in which canto a song is omitted.

Quote ten lines of any one of these songs.

8. What are the following? Make a brief note of explanation or reference in each case:—

Gael; Sassenach; tartan; kern; shallop; dingle; quarry; russet, a Nymph, a Naiad, or a Grace; Knight of Snowdoun; eglantine; a Lennox foray: Holyrood; From Tweed to Spey; ptarmigan; Yarrow braes; Phantom sire.

9. Mention, with concise description, and estimate six of the leading persons in this poem. Make a note on each of the following names, and state how each is referred to in the Lady of the Lake: Ben-Shie, Ben Venue, Coir-Uriskin, Stumah, Lufra, Teith, Saint Bride, Loch Voil, Bochastle, Clan-Alpine, Coilant ogle.

HISTORY.

COLLIER :—*Great Events;* History of Greece (Primer), History of Rome (Primer).

WEDNESDAY, JUNE 7TH :—AFTERNOON, 2 TO 3.30.

Examiners, ... { JOHN L. DAY, B.A.
REV. PRINCIPAL ADAMS, D.C.L.
CHAS. E. MOYSE. B.A.
REV. J. HEPBURN, M.A.

(Answer *one* question from each division).

I.

1. Trace the changes in the jurisdiction of the Areopagus from its beginning to the time of Pericles.

2. An account of the colonies of Greece. In what respects did they differ from those of Great Britain ?

II.

3. The Crusades.—(*a*) Causes. (*b*) Main events (with dates). (*c*) Results.

4. The Second Punic War. (Same details as in 3.)

III.

5. In what connection do we read of : (*a*) the XXX tyrants, (*b*) the second triumvirate, (*c*) the Albigenses, (*d*) Helots, (*e*) the Snow King, (*f*) the Decemviri, (*g*) Dragonnades, (*h*) the Huguenots.

6. For what reason are these names celebrated in history: (1) Roderigo Diaz de Bivar. (2) Leonidas. (3) Savonarola. (4) Tiberius Sempronius Gracchus. (5) Socrates. (6) Queen Isabella. (7) Marcus Aurelius. (8) Kosciusko.

IV.

7. In regard to the following treaties, state *first*, when they were concluded ; *secondly*, between what nations ; and *thirdly*, the terms of each : (*a*) Peace of Westphalia. (*b*) Treaty of Verdun. (*c*). Peace of Antalkidas. (*d*) Treaty of Amiens. (*e*) Treaty of Utrecht.

8. Short notes on : (1) Christianity in the first century. (2) Retreat of the Ten Thousand. (3) Censors. (4) The Vikings. (5) Conspiracy of Catalina. (6) The Nomothetae. (7) Girondists. (8) The extent of the Roman Empire under Augustus.

V.

9. A short sketch of (*a*) Chivalry in the Middle Ages, *or* of (*b*) Life at the Court of Charlemagne.

10. Assign important events to the following dates: B.C. 399, 338, 202, 197, 45; A.D. 9, 325, 800, 1386, 1574.

GEOGRAPHY.

TUESDAY, JUNE 6TH:—AFTERNOON, 3.30 to 5.

Examiners,..... { REV. J. HEPBURN, M.A.
REV. PRINCIPAL ADAMS, D.C.L.
CHAS. E. MOYSE, B.A.
JOHN L. DAY, B.A.

(Not more than two questions are to be answered from each division).

I.

1. Define Aurora borealis, Maelstrom, Geysers, Catacombs, Khedive, Republic, Czar, Lava, Monsoon, Delta.

2. What is the proportion of land to water on the world, and how is it arranged?

3. Give the principal races of the world, and the countries in which they live, briefly distinguishing them one from another.

II.

1. Where and what are Yeddo, Pitcairn, Magellan, Popocatapetl, Uganda, Tristan D'Acunha, Delhi, Vesuvius, Neva, Everest?

2. Name the cities of the world with a population of a million or more.

3. Give the *capes* of Greece, *rivers* of Russia, *cities* of Germany, *lakes* of Switzerland, and *mountains* of Europe.

III.

1. What are the products of France, China and the West Indies?

2. Make a map of the British Isles, marking the chief *cities*, *rivers* and *lakes*.

3. Write, as fully as you can, what you think of the prospects of our Dominion in *agriculture*, *minerals* and *fisheries*?

ZOOLOGY.

JUNE :—1½ HOUR.

Examiner,.....J. WM. DAWSON, LL.D.

1. Define Zoology as a science.

2. How may animals be divided into two great groups?

3. Give the characters of *Coelenterata*, with examples.

4. Mention the leading divisions of *Annelida*, and describe one with Canadian examples.

5. How would you classify a snail, a spider, a whale and a coral, and why?

6. How may fishes be distinguished from other vertebrates?

7. What orders of insects include species destructive to crops? Give an account of one.

8. Think of any Canadian animal well known to you. State shortly its place in the classification, and either its general structure *or* its habits and mode of life.

N.B.—The candidate may select any *six* of the above questions.

BOTANY.

WEDNESDAY, JUNE 7TH :—9 TO 10.30 A.M.

Examiner,.....D. P. PENHALLOW, B.Sc.

GROUP I.

1. Give a concise account of the roots as to (*a*) principal forms, (*b*) duration, (*c*) function.

2. State the principal forms of underground stems, with examples.

3. Apply the following terms, and give examples: shrub, tree, herbaceous, woody.

GROUP II.

4. Give a concise account of the structure of the leaf, and show how the simple and compound forms differ.

5. Explain fully the structure of the pistil, and show how the simple and compound forms may be distinguished.

6. Give an account of the way in which a seed is produced in an Angiosperm.

GROUP III.

7. What are the sources from which plant food is obtained, what is the nature of such food and how does it enter the plant?

8. Describe the structure and form of the plant cell.

9. Describe a fern as to its general structure and form, and mode of reproduction.

10. Describe the specimen given.

The candidate will answer six questions, selecting two from each group.

The examiner will supply any common wild flower.

ELEMENTARY CHEMISTRY.

THURSDAY, JUNE 8TH:—AFTERNOON, 1½ HOUR.

Examiners,..... { B. J. HARRINGTON, B.A., PH.D. / NEVIL NORTON EVANS, M.A. SC.

NOTE.—Answer two questions only from each group.

I.

1. What is a natural law? State and explain briefly the laws of definite and multiple proportion.

2. What are efflorescent and deliquescent substances? Give examples of each.

3. How many liters of Oxygen (1 liter=1.43 gram) would be required to convert 1 kilogram of Carbon into Carbon Dioxide?

II.

1. What is neutralisation? Give several examples, and illustrate by means of equations.

2. How would you prepare Nitric Acid? Give a drawing of the apparatus that you would employ. What are the properties of the Acid?

3. What do you understand by disinfection? Mention any disinfectants that you are familiar with.

III.

1. What takes place on warming a mixture of Slaked Lime and Ammonium Chloride? Give the properties of the gas produced.

2. How is Hydrogen Sulphide prepared? Explain its use as a chemical reagent.

3. Why do some flames give light and others not?

PHYSIOLOGY AND HYGIENE.

WEDNESDAY, JUNE 7TH :—MORNING, 10.30 TO 12.

Examiner, ... CHAS. E. MOYSE, B.A.

(N.B.—Candidates may obtain the maximum number of marks in one of these two ways: namely, by answering any *three* questions from each of the groups A and B, being six questions in all; *or* by first answering group C, and then any four questions from the remainder of the paper, being five questions in all.)

A:

1. Distinguish between :—

(*a*) Anatomy and Physiology.

(*b*) a ligament and a tendon.

(*c*) a hinge-joint and a ball-and-socket joint, with an illustration of each.

(*d*) the situation of the tricuspid and mitral valves.

(*e*) the rapidity of breathing and of the pulse in an adult.

(*f*) the lymphatics and the lacteals.

(*g*) an incisor and a molar tooth.

(*h*) the situation of the white and grey nerve substance in the cerebrum and spinal cord. State where the cerebellum is situated, and what form the white nerve substance assumes in it.

(*i*) voluntary and involuntary muscle.

2. (*a*) What is the diaphragm, and where is it situated?

(*b*) State, as accurately as you can, the function of the diaphragm in respiration.

(*c*) Distinguish between expired and inspired air.

(*d*) How would you secure good ventilation in a room?

3. Describe, as fully as you can, the contents of the eyeball. Explain why we see very near and very distant objects with equal clearness.

4. (*a*) State what you know concerning red and white blood corpuscles.

(*b*) Imagine a red blood corpuscle passing from the left ventricle through the systemic circulation until it enters the left ventricle again ; trace it, and state what changes it undergoes in its course.

(*c*) What changes take place in drawn blood freely exposed to the air?

(*d*) What causes a small blood vessel which has been severed to cease bleeding?

B.

1. A person eats a fat mutton chop and potatoes, takes salt with his food and drinks water :

(*a*) What classes of food is he using?

(*b*) State what change, if any, each class undergoes previous to absorption, and what causes the change?

(*c*) State in what part or parts of the digestive tract each class is absorbed.

2. (*a*) Distinguish between Cranial and Spinal nerves.

(*b*) A person cuts his finger, and suddenly draws back his hand with an exclamation of pain ; what functions have been performed by the nervous system?

(*c*) Mention a nerve which is purely sensory. Give, if you can, a simple proof that it is so.

(*d*) State what you know concerning the general functions of the chief parts of the brain.

3. (*a*) Why is no pain felt when a blister is pricked?

(*b*) On what parts of the body is the skin most sensitive? Describe a simple experiment which determines this.

(*c*) Give some account of the dermis.

(*d*) Write on the hygiene of the skin with reference to clothing.

4. Make notes on : clavicle, milk teeth, cartilage, membrana tympani, synovial membrane, vertebra, sternum, mucous membrane, sutures, semi-circular canals.

C.

State precisely how you would demonstrate the following, and describe *fully* how you would use such apparatus as you might require :

(*a*) the existence of red blood corpuscles.

(*b*) the existence of valves in a vein of the extremities.

(*c*) the circulation of the blood in a frog's foot.

(*d*) the existence of animal and earthy matter in bone.

(*e*) the properties of expired air.

(*f*) the insensible excretion of moisture by the skin.

PHYSICS.

FRIDAY, JUNE 9TH:—MORNING, 9 TO 10.30.

Examiner,..... ..... REV. PRINCIPAL ADAMS, D.C.L.

1. What are the laws of floating bodies?

2. If a substance have a specific gravity of $\frac{8}{10}$, how much of its volume will be out of the water when floating?

3. Describe the construction of the barometer.

4. Compare the heights of the water and mercury barometers.

5. In the case of a falling body, find the spaces described in the four quarters of the first second of its fall.

6. In the case of a body thrown up vertically with a velocity of 320 feet per second, find for how many seconds it will ascend, and how many feet it will ascend; and if the body weighs one pound, find the work done in the ascent.

7. Shew how to graduate a thermometer, and give the comparison of the three scales used. For what temperature will the numbers registered in Fahrenheit and Centigrade be the same?

8. Two bodies of mass $16\frac{1}{2}$ and $15\frac{1}{2}$ respectively are suspended at the two ends of a string which hangs over a smooth pulley, find the acceleration.

If the string is cut after two seconds, find at what rate the bodies will separate.

9. Give examples of adhesion, cohesion, attraction.

GEOMETRICAL AND FREEHAND DRAWING.

THURSDAY, JUNE 8TH, 1893:—9 TO 12 A.M.

Examiner,.....C. H. MCLEOD, MA.E

1. Divide a line three inches in length into parts having the ratio 2 : 3 : 7.

2. Given a straight line and two points on one side of the line, draw a circle containing the points and touching the line.

3. Draw an hyperbola on a base 3 in. long when the height is 1.2 in. and the axis 2.4 in.

4. Draw a rectangle 2.5 in. by 1.2 in., and construct a square having the same area.

5. Draw the development (the flat surface from which the object may be formed) of a square pyramid having a base of 2 in. side and a slant height of 3 in.

6. Make a freehand drawing, slightly enlarged, of the Nile lily, flower and leaf, as in the copy before you.

7. Make a freehand drawing of the objects before you, as they appear from your point of view.

(*a*) A cylinder standing on an octagonal base of two steps.

(*b*) A pentagonal pyramid.

NOTE.—Candidates are informed that the Geometrical (the first five questions) cannot be answered without instruments (compasses and straight-edge), and that no marks will be given for freehand problems (questions 6 and 7) if instruments are used in drawing them.

The cylinder on its octagonal base is to be placed on a table, so that it shall be from 12 to 15 inches below the eye of the candidate, and at a distance of four feet from him. The octagonal base is to be placed so that one set of faces shall be perpendicular to the line of sight. The pentagonal pyramid is to be placed in a similar position, and so that one edge of a base is parallel to the line of sight.

III. Advanced A. A.

(In the order given in the Regulations.)

III. ADVANCED OPTIONAL SUBJECTS.

LATIN.

MONDAY, JUNE 5TH:—MORNING, 9 TO 12.

Examiners,..... { REV. GEORGE CORNISH, LL.D.
VERY REV. DEAN NORMAN, D.C.L.
A. JUDSON EATON, M.A., Ph.D.
REV. G. H. A. MURRAY, M.A.

(A) TRANSLATION.

I. Talia voce refert, *curisque* ingentibus aeger
spem voltu simulat, premit altum corde dolorem.
Illi se *praedae* accingunt dapibusque futuris.
Tergora deripiunt *costis* et viscera nudant;
pars in frusta secant veribusque trementia figunt;
litore aena locant alii, flammasque ministrant.
Tum victu revocant viris, *fusique* per herbam.
Inplentur *veteris Bacchi* pinguisque ferinae.
Postquam exempta fames epulis mensaeque remotae,
amissos longo socios sermone requirunt.
Spemque metumque inter dubii, seu vivere credant,
sive *extrema* pati nec iam exaudire vocatos.
Praecipue pius Aeneas nunc acres Oronti,
nunc Amyci casum gemit et crudelia secum
fata Lyci, fortemque Gyan, fortemque Cloanthum.

VIRGIL, BK. I.

II. Fuisti igitur apud Laecam illa nocte, Catilina: distribuist partes Italiae: statuisti quo quemque proficisci placeret: delegisti auos Romae *relinqueres*, quos tecum educeres: descripsisti urbis partes ad incendia: confirmasti te ipsum iam *esse exiturum*: dixisti paullulum tibi esse etiam tum *morae*, quod ego *viverem*. Reperti sunt duo equites Romani, qui te ista cura *liberarent*, et sese illa ipsa nocte, paullo ante lucem, me meo in lectulo interfecturos pollicerentur. Haec ego omnia, vix dum etiam coetu vestro dimisso, comperi: domum meam maioribus praesidiis munivi atque firmavi: exclusi eos, quos tu mane ad me *salutatum* miseras, cum illi ipsi *venissent*; quos ego iam multis ac summis viris ad me id temporis venturos esse praedixerqm.

CICERO, In Catil I.

III. Quae cum ita sint, Quirites, vos, quemadmodum iam antea, vestra tecta custodiis vigiliisque defendite: *mihi*, ut *urbi* sine vestro motu ac sine ullo tumultu, satis esset praesidii, consultum ac provisum est. Coloni omnes municipesque vestri, certiores a me facti de hac nocturna excursione Catilinae, facile urbes suas finesque defendent:

gladiatores, quam sibi ille maximam manum et certissimam fore putavit, quamquam *meliore animo* sunt quam pars patriciorum potestate tamen nostra continebuntur. Q. Metellus, quem ego prospiciens hoc in agrum Gallicanum Picenumque praemisi, aut opprimet hominem, aut omnes eius motus conatusque prohibebit.

CICERO, In Catil. II.

IV. (*At Sight*). Labienus, cum et loci natura et manu munitissimis castris sese teneret, de suo ac legionis periculo nihil timebat: ne quam occasionem rei bene gerendae dimitteret cogitabat. Itaque a Cingetorige atque eius propinquis oratione Induciomari cognita quam in concilio habuerat, nuntios mittit ad finitimas civitates equitesque undique evocat: his certum diem conveniendi dicit. Interim prope cotidie cum omni equitatu Induciomarus sub castris eius vagabatur alias ut situm castrorum cognosceret, alias colloquendi aut territand, causa: equites plerumque omnes tela intra vallum coniiciebant. Labienus suos intra munitionem continebat timorisque opinionem quibuscumque poterat rebus augebat.

V. (*At Sight*). Chabrias autem periit bello sociali tali modo Oppugnabant Athenienses Chium. Erat in classe Chabrias privatus sed omnes, qui in magistratu erant, auctoritate anteibat, eumque magis milites, quam qui praeerant, aspiciebant. Quae res ei maturavit mortem. Nam dum primus studet portum intrare, gubernatorem iubet eo dirigere navem, ipse sibi perniciei fuit. Cum enim eo penetrasset, ceterae non sunt secutae. Quo facto circumfusus hostium concursu cum fortissime pugnaret, navis rostro percussa coepit sidere. Hinc refugere cum posset, si se in mare deiecisset, quod suberat classis Atheniensium, quae exciperet natantes, perire maluit quam armis abiectis navem relinquere, in qua fuerat vectus. Id ceteri facere noluerunt, qui nando in tutum pervenerunt. At ille, praestare honestam mortem existimans turpi vitae, comminus pugnans telis hostium interfectus est.

(B) LATIN GRAMMAR AND COMPOSITION.

[Candidates are requested to answer questions 1, 3, 5, 6, 8, 10 of the paper on Latin Grammar for the ordinary A. A., and the following].

1. Give the meaning, in the Singular and Plural, of *aedes, castrum, copia, hortus, pars, finis.*

2. Give the derivation of the forms *cogo, debeo, rursus, amarat, surgo, cunctus.*

3. Explain fully the grammatical construction of *italicized* words in passages for translation under (A).

4. Translate into Latin :—

Many and not unknown are the crimes which Catiline has perpetrated. Baseness in private life is branded upon him and clings to his reputation. How many times has he lain in wait, weapon in hand, for the purpose of killing the consul? How many times has he tried to plant his dagger in the consul's body? Yet he can accomplish nothing, for either Cicero's watchfulness or the good fortune of the State thwarts his undertakings. How is it, then? Seeing that all his fellow-citizens know that he is plotting the destruction of the commonwealth, is it possible for this light, this air of heaven, to delight him?

GREEK

MONDAY, JUNE 5TH :—AFTERNOON, 2 TO 5.

Examiners,..... { REV. GEORGE CORNISH, LL.D.
VERY REV. DEAN NORMAN, D.C.L.
A. JUDSON EATON, M.A., PH.D.
REV. G. H. A. MURRAY, M.A.

HOMER, *Iliad IV.; Odyssey VII.*
XENOPHON, *Anabasis, Books I.* and *II.*

1. Translate :—

Ὣς ἔφατ'· Ἀτρεΐδης δὲ παρῴχετο γηθόσυνος κῆρ·
εὗρ' υἱὸν Πετεῶρ, Μενεσθῆα πλήξιππον,
ἑσταότ'· ἀμφὶ δ' Ἀθηναῖοι, μήστωρες ἀϋτῆς·
αὐτὰρ ὁ πλησίον ἑστήκει πολύμητις Ὀδυσσεύς·
πὰρ δὲ Κεφαλλήνων ἀμφὶ στίχες οὐκ ἀλαπαδναὶ
ἕστασαν· οὐ γάρ πώ σφιν ἀκούετο λαὸς ἀϋτῆς,
ἀλλὰ νέον συνορινόμεναι κίνυντο φάλαγγες
Τρώων θ' ἱπποδάμων καὶ Ἀχαιῶν· οἱ δὲ μένοντες
ἕστασαν, ὁππότε πύργος Ἀχαιῶν ἄλλος ἐπελθὼν
Τρώων ὁρμήσειε, καὶ ἄρξειαν πολέμοιο.

2. Translate, and explain (where necessary) the construction of :—(1) ἕρκος ὀδόντων. (2) αὐτω γαρ μάλα λαὸν

ἀνώγετον ἴφι μάχεσθαι. (3) ὡς ὀφελέν τις ἀνδρῶν ἄλλος ἔχειν, σὺ δὲ κουροτέροισι μετεῖναι. (4) μυρίαι ἑστήκασιν ἀμελγόμεναι γάλα λευκὸν ἀζηχὲς μεμακυῖαι, ἀκούουσαι ὅπα ἀρνῶν.

3. Translate :—

πεντήκοντα δέ οἱ δμωαὶ κατὰ δῶμα γυναῖκες
αἱ μὲν ἀλετρεύουσι μύλης ἔπι μήλοπα καρπόν,
αἱ δ' ἱστοὺς ὑφόωσι καὶ ἠλάκατα στρωφῶσιν
ἥμεναι, οἷά τε φύλλα μακεδνῆς αἰγείροιο·
καιροσσέων δ' ὀθονέων ἀπολείβεται ὑγρὸν ἔλαιον.
ὅσσον Φαίηκες περὶ πάντων ἴδριες ἀνδρῶν
νῆα θοὴν ἐνὶ πόντῳ ἐλαυνέμεν, ὥς δὲ γυναῖκες
ἱστὸν τεχνῆσσαι· πέρι γάρ σφισι δῶκεν Ἀθήνη
ἴργα τ' ἐπίστασθαι περικαλλέα καὶ φρένας ἐσθλάς.
ἔκτοσθεν δ' αὐλῆς μέγας ὄρχατος ἄγχι θυράων.
τετράγυος· περὶ δ' ἕρκος ἐλήλαται ἀμφοτέρωθεν.
ἔνθα δὲ δένδρεα μακρὰ πεφύκει τηλεθόωντα,
ὄγχναι καὶ ῥοιαὶ καὶ μηλέαι ἀγλαόκαρποι
συκέαί τε γλυκεραὶ καὶ ἐλαῖαι τηλεθόωσαι.

4. Give (1) the Attic forms for *νῆα, θυράων, ἐλαυνέμεν, ἔπλεθ'*. (2) Explain the difference between an atonic and an enclitic word, and give instances of both classes.

5. Give the plot of the 4th Iliad and the 7th Odyssey. It has been said that the Odyssey, as a whole, is a superior poem in construction to the Iliad. Can you suggest any ground for this opinion?

6. Put into Greek :—(1) He longed to become ruler with full powers. (2) They offered themselves to be cut and burnt. (3) You shall never go out from this land. (4) They feared that the city would not be preserved, I fear that the enemies will escape. (5) Whenever they stayed in the city, they used to come to my house. (6) He sent messengers to carry the news to Cyrus.

7. Translate :—(1) *παννυχιος φερόμην, ἅμα δ'ἠελίᾳ ἀνιόντι ἦλθον ἐπ Σκυλλης σκόπελον, δεινήν τε χάρυβδιν.* (2) *ὁ μὲν οὐρανὸν ἐυρὺν ἱκάνει ὀξείῃ κορυφῇ, νεφέλη δὲ μιν ἀμφιβέβηκε κυανέη.*

Derive the words underlined.

8. Translate :—

(*a*) *Ἐν τούτῳ δε τῷ τόπῳ ἦν μὲν ἡ γῆ πεδίον ἅπαν ὁμαλόν ὥσπερ θάλαττα, ἀψινθίου δὲ πλῆρες· εἰ δέ τι καὶ ἄλλο ἐνῆν ὕλης ἢ καλάμου, ἅπαντα ἦσαν εὐώδη, ὥσπερ ἀρώματα· δένδρον δ' οὐδὲν ἐνῆν. Θηρία δε παντοῖα, πλεῖστοι μὲν ὄνοι ἄγριοι, πολλοὶ δὲ στρουθοὶ οἱ μεγάλοι· ἐνῆσαν δὲ καὶ δορκάδες· ταῦτα δὲ τὰ θηρία οἱ ἱππεῖς ἐνίοτε ἐδίωκον. Καὶ οἱ μὲν ὄνοι, ἐπεί τις διώκοι, προδραμόντες ἔστασαν ἀν· πολὺ γὰρ τῶν ἵππων ἔτρεχον θᾶττον· καὶ πάλιν, ἐπεὶ πλησιάζοιεν οἱ ἵπποι, ταὐτὸν ἐποίουν· καὶ οὐκ ἦν λαβεῖν, εἰ μὴ διαστάντες οἱ ἱππεῖς θηρῷεν διαδεχόμενοι τοῖς ἵπποις.*

(*b*) *Ἀλλ' ἥδομαι μέν, ὦ Κλέαρχε, καὶ ἀκούων σου φρονίμους λόγους· ταῦτα γὰρ γιγνώσκων εἴ τι ἐμοὶ κακὸν βουλεύοις, ἅμα ἄν μοι δοκεῖς καὶ σαυτῷ κακόνους εἶναι. Ὡς δ') μάθῃς, ὅτι οὐδ' ἂν ὑμεῖς δικαίως οὔτε βασιλεῖ οὔτ' ἐμοὶ ἀπιστοίητε, ἀντάκουσον. Εἰ γὰρ ὑμᾶς ἐβουλόμεθα ἀπολέσαι, πότερά σοι δοκοῦμεν ἱππέων πλήθους ἀπορεῖν ἢ πεζῶ ἢ ὁπλίσεως, ἐν ᾗ ὑμᾶς μὲν βλάπτειν ἱκανοὶ εἴημεν ἄν, ἀντιπάσχειν δὲ οὐδεὶς ἱκνδυνος ; Ἀλλὰ χωρίων ἐπιτηδείων ὑμῖν ἐπιτίθεσθαι ἀπορεῖν ἄν σοι δοκοῦμεν ;*

9. Derive (1) *σπονδὰς, πανοῦργον, ἠυτομόλησε, δορκάδες, δένδρον.* (2) Give the principal tenses (1st person singular only) of *ἵστημι, δίδωμι, σφάζω, κλαίω, εἶμι, αἰσθάνομαι, ἔδομαι.*

10. Explain the force of the following constructions: (1) The optative with or without ἄν. (2) ὅστις with the optative. (3) The infinitive mood with the article. (4) Distinguish between οἴχομαι, ἥκω, and ἔρχομαι.

11. What cases follow παρὰ, σὺν, μετὰ, ἐκ and ἀνὰ? Give the meaning in each instance.

12. Translate and explain the construction of the following short passages:—(1) ὑμᾶς ἐξὸν ἀπολέσαι. (2) εἶμι ὁδὸν τλημονεστάτην.

FRENCH.

THURSDAY, JUNE 1ST:—AFTERNOON, 3.30 to 5.30.

Examiners, { P. J. DAREY, M.A., B.C.L., LL.D., OFFICIER D'ACADÉMIE.
J. L. MORIN, M.A.

1. Quels sont les principaux personnages du *Bourgeois Gentilhomme?* Décrivez le rôle de deux.

2. Ecrivez brièvement la vie de Molière ou de Alphonse de Lamartine.

3. Traduisez les expressions suivantes tirées du *Bourgeois Gentilhomme*:—

Des louanges toutes pures. Regaillardir. Se trémousser. Tout beau! De plaisantes gens. Diantre soit de l'âne bâté. Il n'y a morale qui tienne. Tout mon soûl. Belle demande! Plaît-il? Je te baillerai sur le nez. Tout à l'heure. Anguille sous roche. Ne faites pas semblant de rien. Je perds la tramontane

4. Traduisez en anglais:

Madame Jourdain. Ce n'est pas d'aujourd'hui, Nicole, que j'ai conçu des soupçons de mon mari. Je suis la plus trompée du monde, ou il y a quelque amour en campagne; et je travaille à découvrir ce que ce peut être. Mais songeons à ma fille. Tu sais l'amour que Cléonte a pour elle; c'est un homme qui me revient; et je veux aider sa recherche, et lui donner Lucile, si je puis.

Nicole. En vérité, madame, je suis la plus ravie du monde de vous voir dans ces sentiments; car, si le maître vous revient, le valet ne me revient pas moins, et je souhaiterais que notre mariage se put faire à l'ombre du leur.

Le Bourgeois Gentilhomme, Ac. III, Sc. VII.

5. Faites un court résumé de la vie de Jeanne d'Arc ; décrivez sa mort ; indiquez-en les causes.

6. Traduisez en anglais :—

Mademoiselle,—un inconnu a appris votre maladie ; il sait combien de chagrins de toutes sortes elle vous cause ; il sait surtout le tort qu'elle vous fait relativement aux articles que vous ne pouvez plus donner au *Publiciste*. Cet inconnu a l'honneur de vous envoyer ci-joint un article où il a essayé d'imiter votre style et votre manière, et qui, si vous le jugez convenable, pourrait être publié dans le journal au jour fixé pour vos envois. Vous recevrez ainsi pendant tout le temps de votre maladie, et à époques régulières, un article tout fait, destiné à remplacer celui que votre état de santé vous empêche d'écrire vous-même.

Signé : *l'Inconnu.*

7. Traduisez en français :—

The close of the day is, in the regions of the torrid zone, the only season of diversion and entertainment, and it was therefore midnight before the music ceased and the princesses retired. Rasselas then called for his companion, and required him to begin the story of his life. "Sir," said Imlac, "my history will not be long ; the life that is devoted to knowledge passes silently away and is very little diversified by events. To talk in public, to think in solitude, to read and to hear, to inquire and answer inquiries, is the business of a scholar.

Rasselas.

8. Quels changements orthographiques remarquez-vous dans les verbes terminés en *ger, cer, eler, eter* ?

9. Conjuguez au présent indicatif, au passé défini, au futur et au présent subjonctif *se promener, falloir, naitre, parti, dire.*

10. Indiquez cinq règles sur l'accord des participes passés ; donnez des exemples à l'appui.

GERMAN.

WEDNESDAY, JUNE 7TH:—AFTERNOON, 3.30 TO 5.

Examiners..... ..... { A. J. EATON, M.A., PH.D. / L. R. GREGOR, B.A.

1. Der Prinz.

Ich bin äußerst beschämt. –Ja, Emilia, ich verdiene diesen stummen Vorwurf.— Mein Betragen diesen Morgen ist nicht zu rechtfertigen:—Zu entschuldigen höchstens. Verzeihen Sie meiner Schwachheit. Ich hätte Sie mit keinem Geständnisse beunruhigen sollen, von dem ich keinen Vorteil zu erwarten habe. Auch ward ich durch die sprachlose Bestürzung, mit der Sie es anhörten, oder vielmehr nicht anhörten, genugsam bestraft.—Und könnte ich schon diesen zufall, der mir nochmals, ehe alle meine Hoffnung auf ewig verschwindet,—mir nochmals das Glück Sie zu sehen und zu sprechen verschafft; könnt' ich schon diesen Zufall für den Wink eines günstigen Glückes erklären,—für der wunderbarsten Aufschub meiner endlichen Verurteilung erklären, um nochmals um Gnade flehen zu dürfen: so will ich doch—behen Sie nicht mein Fräulein—einzig und allein von Ihrem Blicke abhangen. Kein Wort, kein Seufzer soll Sie beleidigen.

2. (A) „Tief in den Fels, auf dem es hängt
Ist eine Grotte eingesprengt,
Vom Thau des nahen Moors befeuchtet,
Wohin des Himmels Strahl nicht leuchtet.
Hier haufete der Wurm und lag,
Den Raub erspähend, Nacht und Tag.
So hielt er, wie der Höllenbrache,
Am Fuß des Gotteshauses Wache;
Und kam der Pilgrim hergewallt
Und lenkte in die Unglücksstraße,
Hervorbrach aus dem Hinterhalt
Der Feind und trug ihn fort zum Fraße."

(B) Um Gnade flehen alle Brüder;
Doch schweigend blickt der Jüngling nieder,
Still legt er von sich das Gewand

Und küßt des Meisters strenge Hand
nd geht. U Dlgh rileofm mit dem Blicke,
Dann ruft er liebend ihn zurücke
Und spricht: „Umarme mich, mein Sohn!
Dir ist der härt're Kampf gelungen.
Nimm dieses Kreuz. Es ist der Lohn
Der Demuth, die sich selbst bezwungen."

3. Translate :—

(A) This evening I was at a large tea at Goethe's for the first time. I was the first on the spot and rejoiced over the brightly illuminated rooms. In one of these I found Goethe, who came to meet me. He wore his star on a black costume. This was very becoming to him.—Eckerman.

(B) Certainly, gracious lady. Marloff owes me nothing. Rather has he left me as his debtor. I have never been able to do anything to settle (sich abfinden) with a man who for six years shared fortune and misfortune, honour and danger with me. I shall not forget that there is a son of his there. He shall be my son as soon as I can be his father.—Minna von Barnhelm.

(C) This house is very much larger and finer than the one we used to live in. The neighbourhood is more agreeable, the air purer and our children have more room to play. Come and pay us a visit. We shall be all glad to see you. Bring your little girl with you and stay to tea.

4. Give the German equivalent and the three principal parts of the following verbs: take, hold, call, strike, sleep, name, happen, be called, burn, remain, throw, know.

5. Decline in the singular :—der härtere Kampf, ein eisernes Kreuz.

6. Give all the verbal prefixes which are always inseparable, and give one infinitive in illustration of each. State the peculiarities of inseparable verbs.

7. Enumerate the model auxiliaries, and compose sentences in German, illustrating their various meanings and uses.

8. Explain fully, with examples, two cases in which the subjunctive mood would be employed in German.

GEOMETRY.

FRIDAY, JUNE 2ND:—AFTERNOON, 2 TO 4.

Examiners, ... { REV. PRINCIPAL ADAMS, D.C.L.
H. M. TORY, B.A.
F. TOPP, B.A.

Answer the first four questions and two others.

1. (*a*) Prove fully that the three angles of a triangle are together equal to two right angles.

(*b*) Find the angle of a regular octagon both external and internal.

2. (*a*) To find a point in a straight line AB so that the rectangle AB, BH = square in $A H$.

(*b*) Shew that another such point exists in BA produced.

(*c*) Under what form does (*a*) occur in Book VI?

3. (*a*) The angle in the same segment is always the same.

(*b*) Two tangents AB, AC are drawn to a circle: D is any point on the circumference outside of the triangle ABC; shew that the sum of the angles ABD and ACD is constant.

4. (*a*) In a given circle to inscribe a regular pentagon.

(*b*) The straight lines which join the angular points of a regular pentagon which are not adjacent, intersect at the angular points of another regular pentagon.

5. (*a*) Any straight line drawn parallel to the base of a triangle cuts the two sides (or their prolongations) proportionally (3 figures). Prove this, and also (*b*) state and prove the converse. (*c*) Perpendiculars are drawn from any point within an equilateral triangle on the three sides, shew that their sum is invariable.

6. (*a*) To make a rectilineal figure similar to a given rectilineal figure and equal in area to another rectilineal figure.

(*b*) If two isosceles triangles are to one another in the duplicate ratio of their bases, shew that the triangles are similar.

7. (*a*) Similar triangles are as the squares of their homologous sides.

(*b*) Find a fourth proportional to three given straight ines.

ALGEBRA.

THURSDAY, JUNE 1ST:—AFTERNOON, 2 TO 3.30.

Examiners, ... { REV. PRINCIPAL ADAMS, D.C.L.
H. M. TORY, B.A.
F. TOPP, B.A.

1. Simplify $\frac{\sqrt{12 + 6\sqrt{3}}}{1 + \sqrt{3}}$ Find the difference between $\sqrt{\frac{2}{3}}$ and $\sqrt[3]{\frac{2}{3}}$.

2. If the sum of n terms of an arithmetical progression is always equal to n^2, find the first term and the common difference.

3. The geometrical mean of two numbers is 48; the harmonical mean is $46\frac{2}{3}$; find the numbers.

4. Solve the equation $\sqrt{b^2 + x^2} - \sqrt{a^2 + bx} = a + b$.

5. Solve the equation $\frac{10x + 17}{18} - \frac{12x + 2}{13x - 16} = \frac{5x - 4}{9}$

6. Solve the equation $\begin{cases} x^2 + xy = a(a + b) \\ x^2 + y^2 = a^2 + b^2 \end{cases}$

7. Reduce to its lowest terms

$$\frac{4x^3 - 27x^2 + 58x - 39}{x^4 - 9x^3 + 29x^2 - 39x + 18}.$$

Shew that $\left(\frac{1}{y-z} + \frac{1}{z-x} + \frac{1}{x-y}\right)^2 = \frac{1}{(y-z)^2} + \frac{1}{(z-x)^2} + \frac{1}{(x-y)^2}$

TRIGONOMETRY.

FRIDAY, JUNE 2ND:—AFTERNOON, 4 TO 5.30.

Examiners, ... { REV. PRINCIPAL ADAMS, D.C.L.
H. M. TORY, B.A.
F. TOPP, B.A.

1. Prove that $\cos(A + B) = \cos A \cos B - \sin A \sin B$.

2. Prove that in any triangle

(*a*) $\cos A = \frac{b^2 + c^2 - a^2}{2bc}$;

(*b*) $\cos \frac{A}{2} = \sqrt{\frac{s(s-a)}{bc}}$,

where $2s = a + b + c$.

3. Prove the following relations

(1) $(\text{cosec } C - \cot C)^2 = \dfrac{1 - \cos C}{1 + \cos C}$

(2) $\cos (C + B) . \cos (C - B) = \cos^2 B - \cos^2 C.$

(3) $\dfrac{\sin 5C + \sin 3C}{\cos 3C - \cos 5C} = \cot C$

(4) $\sec^2 C = \dfrac{2 \sec 2C}{1 + \sec 2C}$

4. What is a Logarithm? Prove that the logarithm of a quotient is equal to the logarithm of the dividend diminished by the logarithm of the division.

If $6_x = 27$, find x

5. In any triangle prove that $\tan \dfrac{A - B}{2} = \dfrac{a - b}{a + b} \cot \dfrac{C}{2}$

If $A = 30.^\circ 30' 30''$, $b = 25$, $c = 35$; find B, C and a.

6. A and B are two points 100 feet apart, and C is a point equally distant from A and B; what must this distance be that the angle $A\ C\ B$ may be 150°?

ENGLISH LANGUAGE.

LOUNSBURY:—*History of the English Language;* MASON:—*English Grammar.*

THURSDAY, JUNE 8TH:—AFTERNOON, 3.30 TO 5.30.

Examiners, ... { CHAS. E. MOYSE, B.A. / REV. PRINCIPAL ADAMS, D.C.L.

[Questions 10 and 11 are *obligatory*. Of questions 1 to 6 answer only *four*; of 7, 8 and 9, any *two*.]

1. Write on *ablaut* and *umlaut*.

2. Write out the forms of the Anglo-Saxon verb *singan* (to sing), and show by what steps they were subsequently modified.

3. Treat the plural forms of English nouns historically.

4. Mention the pronouns compounded with *lic*, and notice modifications of their forms as our language progressed. Make notes on *then way, the tother, these.*

Which is the older form, *mine* or *my*? Substantiate your answer.

Notice the syntax of *self* in Anglo Saxon, and illustrate.

5. Write on the past tense of weak verbs in regard to formation, sound of the affix, and influence on the quantity of the verb stem.

6. In proof of what does Lounsbury make detailed reference to Robert of Gloucester and Trevisa's translation of Higden? Give the substance of the opinions of the writers just mentioned concerning the matters you have named.

7. Classify the letters of the English alphabet. How does the Anglo-Saxon differ from our modern alphabet? Make a note on the A.S. Alphabet and runes.

Give the diphthongs, with examples.

8. Show that a pronoun is not what its name implies.

Make notes on the use of the italicized verbs in

I wish that he *were* here.
If he *is* present, our cause is lost.
If he *were* present, I would speak to him.
It is I who *am* at fault.

Make notes on the following constructions: It is *me* whom he fears; to rightly use.

9. Classify Adverbial *clauses*, and give one example of each class. Sketch the origin of Prepositions, and notice general ideas which underlie the various meanings of two or three of our most common Prepositions.

10. Analyse:

(*a*) What thy soul holds dear, imagine it to be what way thou goest.

(*b*) At every breath were balmy odours shed,
Which still grew sweeter as they wider spread.

(*c*) I tell thee, man, 'tis better with me now
Than when I met thee last where now we meet.

11. Write a composition on *one* of the following subjects: Ceremonies; Music; the Moon.

LITERATURE.

TUESDAY, JUNE 6TH:—AFTERNOON, 2 TO 3.30.

Examiners,..... ..... { REV. PRINCIPAL ADAMS, D.C.L.
CHAS. E. MOYSE, B.A.

(No more than *two* questions from each Division are to be answered.)

A.—GENERAL.

1. Give a short account of the life, works and style of John Dryden and Jonathan Swift.

2. Who wrote the following: Citizen of the World, Rasselas, Tam O'Shanter, Essay on the Sublime and Beautiful, The Task, Beppo, The Library, Vision of Don Roderick.
Give dates of the life of each author and one other fact about each.

3. Name one work of the following authors, and briefly describe the style and influence of each writer: Samuel Richardson, David Hume, Thomas Gray, Edward Gibbon, Robert Southey, S. T. Coleridge, Hartley Coleridge, Wordsworth.

B.—ELIZABETHAN PERIOD.

1. Give a list of the chief tragedies of Shakespeare, and name his non-dramatic works.

2. Give an estimate of Bacon as a philosopher and as a literary man.

3. Give the names and chief works of any four dramatists of this period.

4. Give a notice of the author of the Faerie Queene.

C.—PARADISE LOST, BKS. I AND II.

1. Give a general sketch of the Argument of Bk. I. Quote ten consecutive lines of the Book.

2. Give notes on the following, and supply the line in which the phrase or word occurs, if you can: Ethereal temper; Busiris; Rhene or the Danaw; Moloch; Astarte; the Ammonite; Abarim; Seon's realm; good Josiah; Thammuz; Titan; Rimmon; o'er the Celtic; Uther's son; Mulciber.

3. Annotate carefully the following names from Bk. II: Ormus, O peers, Mammon, Michael, Atlantean shoulders, Typhœan rage, Alcides, Œta, Lethe, Bengala, Scylla, Ophiuchus, Stygian powers, Orcus, Argo.

HISTORY.

WEDNESDAY, JUNE 7TH:—AFTERNOON, 2 TO 3.30.

Examiners, ... { REV. PRINCIPAL ADAMS, D.C.L. / CHAS. E. MOYSE, B.A.

1. Give some account of the first Persian invasion of Greece, and the battle which decided its fate.

What interval was there between the first and the second invasion? What were the chief battles of the latter? How did each affect Ionia?

2. Give a brief outline of the course of the Peloponnesian war from its commencement to 413 B.C., and a full account of the expedition against Syracuse and its fate. Why was this defeat decisive?

3. Give a concise sketch of the career and character of Marius and Sulla.

4. Give a clear account of the conquests of Pompey, and show how the first Triumvirate was formed and destroyed.

5. What part did Cicero play in Roman History? Show fully how the Empire was established, and how the prejudice against Kingly rule was overcome.

Give a brief sketch of the career and character of the second Roman Emperor.

6. Give the chief changes in worship and in doctrine made in the Reformation. What is meant by the Protestant Misrule? State concisely the part played by Cromwell, Cranmer and Henry VIII in the English Reformation.

7. For what are the following remarkable: Gresham, Willoughby Chancellor, Skelton, Fairfax (2), Wentworth, Hoby, Foxe, William the Silent, Burghley, Sidney.

8. Trace the effect of the Bible on the life and literature of Puritan England.

Give notes on the following: John Milton; Cartwright; Hooker; the wisest fool in Christendom; the Millenarian Petition; Hampton Court Conference; Laud; the Puritan Emigration; Histrio-Mastix; the New Model.

PHYSICS.

FRIDAY, JUNE 9TH :—MORNING, 9 TO 10.30.

Examiner,.....REV. PRINCIPAL ADAMS, D.C.L.

1. In the case of a falling body, show that spaces described in successive seconds are as the successive odd numbers, and find spaces described in the first four seconds respectively.

Also find how high a balloon must be from which a body can descend to the ground in seven seconds.

2. A body of one lb. mass is thrown vertically upward at the rate of 320 feet per second; find time, space and work done in ascent.

Also at what time after the beginning of the motion will the body be going at the rate of 100 feet per second?

3. Explain and illustrate Mariotte's Law. Explain, with examples, the Diffusion of Gases, Distillation, Specific Heat.

4 Describe carefully the construction of a Grove's Battery and of a Leyden Jar. What are the qualities of a perfect battery?

5. How was the velocity of light discovered? Give the laws of reflection and refraction. Classify Lenses. How is light analysed?

6. Illustrate the statement that the Earth is a Magnet. What is Magnetic Induction?

7. Give concisely the principle of the Steam Engine and of the Galvanometer.

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